Cumberland & Pennsylvania Railroad Revisited

Patrick H. Stakem
November, 2002

Dedicated to
William P. Price (1922-2002)
Extraordinary Rail Photographer,
Good Friend.
This book was his idea.

Copyright 2002 Patrick H. Stakem
All Rights Reserved.

No part of this book may be reproduced without written permission from the copyright holder, except for brief excerpt used in reviews.

ISBN 0-9725966-0-7

Layout & Design by: Michelle R. Morris
First Printing 2002, Laurel, Maryland
Pats' Railroad Books

Table of Contents

1.0 INTRODUCTION AND PERSONAL FOREWORD.....

Acknowledgments.....
Background.....
Scope.....

2. C&P, THE CORPORATE ENTITY.....

3. HISTORY.....

Precursor Activities.....
The Mount Savage Rail Road.....
The Georges Creek Railroad.....
The Eckhart Branch Railroad.....
The Civil War 1860-1866.....
The years 1866-1917, and the GC&C.....
World War I, 1917-1923.....
The Depression, and re-growth.....
World War II, and the post-war.....
Consolidation into the Western Maryland.....

4. FREIGHT.....

Coal, the commodity.....
C&P Shippers Guide, non-coal.....

5. THE SHOPS AT MT. SAVAGE.....

The Blast Furnaces.....
The Rolling Mill, and the First Iron Rail.....
Millholland's Locomotive Shops.....
Engine Rebuildings at Mt. Savage Shops.....
Engine Construction at Mt. Savage for C&P.....
Engines built at Mt. Savage for other roads.....

6. EQUIPMENT AND PHYSICAL PLANT.....

Locomotives.....
C&P Named Engines.....
C&P Engines sold to other roads.....
C&P Engines Built by Ross Winans, Baltimore.....
C&P Engines built by Baldwin, Philadelphia.....
C&P Engines built by Hayward & Bartlett.....
C&P Engine built by Smith & Perkins.....
C&P Engine built by Danforth & Cooke.....
C&P Engines built by Norris.....
C&P Engines from other Roads.....
C&P engine classes.....
Engine Tenders.....
Freight equipment.....
Passenger equipment.....
Maintenance of Way and Non-Revenue Cars.....
Tunnels, Bridges.....
Rails and Interchanges.....
Signaling and Control.....
Facilities.....
Accidents of the C&P.....

7. PASSENGER SERVICE.....

The stations.....
The schedule & service.....
Mail and Express.....
The Cumberland & Westernport Electic Railway.....
Passenger Service on the Georges Creek and Cumberland.....

8. THE ROUTE OF THE C&P.....

The Eckhart Branch.....
The State Line Branch.....
The Potomac Wharf Branch.....
The Main line.....

9. THE PEOPLE OF THE C&P.....

10. WHAT'S LEFT.....

11. REFERENCES & BIBLIOGRAPHY.....

Books and Articles.....
Maps.....
A C&P roster.....
C&P Modelers Guide.....

THE MOUNT SAVAGE LOCOMOTIVE WORKS CATALOG OF 1883.....105

C&P 1937 COMMEMORATIVE GUIDE.....

*"**The Iron Horse has Conquered, and Steam Reigns Triumphant**"*
Cumberland Daily News, 1871

Front Cover: Engine 24 taking water at Carlos
R. Hotchkiss Engineer
J. G. Farrell Fireman
Peter Hughes Brakeman

Back Cover: C&P goes down the creek

D. Mellander collection**Table of Figures**

Figure 1 - The C&P logo.....
Figure 2 – Car weight tally sheet, Mt. Savage, collection of P. H. Stakem.....11
Figure 3 - B&O camel in service in Cumberland, from the H. Vollrath collection.....
Figure 4 - Canal Boats loading at Wineow Street in Cumberland, William P. Price collection.....
Figure 5 - The furnace at Lonaconing, Patrick H. Stakem photo.....14
Figure 6 - Locomotive Georges Creek, J. G. Farrell collection.....15
Figure 7 – C&P Caboose 125, J. G. Farrell collection.....
Figure 8 – a C&P Crew, P. H. Stakem.....
Figure 9 - C&P Eckhart Facilities, collection of J. G. Farrell 16
Figure 10 – Potomac Wharf Branch Track, looking back toward Cumberland. P. H. Stakem photo. Circa 1987 16
Figure 11 – Maryland Mining Company Stock Certificate, courtesy, Washington Historical Autograph and Certificate Organization.....17
Figure 12 - Engine 23, collection of J. G. Farrell.....19
Figure 13 – Overview of GC&C and C&P tracks at City Jct - WMRHS collection.....20
Figure 14 - Georges Creek & Cumberland roundhouse, Cumberland, P. H. Stakem collection.....20
Figure 15 - Midland Trestle, collection of Western Maryland Railway Historical Society.....20
Figure 16 - The C&P-GC&C interchange, Jackson Junction, near Lonaconing. Collection of the Western Maryland Railway Historical Society.....21
Figure 17 - GC&C passenger engine, JG Farrell collection 21
Figure 18 - Georges Creek & Cumberland Clises Hollow Trestle, collection of the Western Maryland Railway Historical Society.....21
Figure 19 - turntable at Midland Junction, collection of the WMRHS.....22
Figure 20 - Millholland House, Cumberland, Patrick H. Stakem photo.....22
Figure 21 - GC&C Shops Crew, P. H. Stakem collection..22
Figure 22 - C&P engine in celebration, J. G. Farrell collection.....
Figure 23 – C&P Way Bill, collection of P. H. Stakem.....24
Figure 24 - Tearing up the Mount Savage Yards, collection of the Western Maryland Railway Historical Society 24
Figure 25 – C&P route and customers map, courtesy, Western Maryland Chapter, NRHS, Inc.....26
Figure 26 - Iron furnaces in Mount Savage, circa 2002, P. H. Stakem photo.....
Figure 27 - The engine Highlander, converted from a Winans camel. J. G. Farrell collection.....29
Figure 28 - Photo of Mount Savage shops, collection of P. H. Stakem.....30
Figure 29 - Mount Savage, collection of P. H. Stakem.....30
Figure 30 - Shops photo, collection of P. H. Stakem.....31
Figure 31 -Pay car for the C&P and the mines, collection of the Western Maryland Railway Historical Society...32
Figure 32 – West Virginia Central & Pittsburg #3, built at Mt. Savage, at Big Run Arch on the Black Fork Grade, 1884. P. H. Stakem collection.....32
Figure 33 –A & NW #5 at Mount Savage – J. G. Farrell collection.....35
Figure 34 - Green Ridge RR engine Number 2, J. G. Farrell collection.....35
Figure 35 – Mt. Savage, circa 1910, P. H. collection.....37
Figure 36 -Engine 30, showing representative Stephenson gear, collection of J. G. Farrell.....37
Figure 37 - Alligator wrench, collection of P. H. Stakem...37
Figure 38- C&P Monkey wrench collection of P. H. Stakem.
Figure 39- Locomotive 24 in for work. J. G. Farrell Collection.....39
Figure 40 - The large planer in the Mt. Savage shops - notice how the bed has been extended. J. G. Farrell collection.....39
Figure 41 - Aftermath of the shops fire, collection of the Western Maryland Railway Historical Society.....
Figure 42 – C&P pay envelope, collection of P.H. Stakem40
Figure 43 – Locomotive Usage Spreadsheet, collection of Westernport Heritage Society.....41
Figure 44 – Engine 56, collection of J. G. Farrell.....42
Figure 45 - C&P 39, a Baldwin, collection of J. G. Farrell 44
Figure 46 - Hocking Valley 282, ex-39, Harold Vollrath collection.....44
Figure 47 - Engine 60 on the C&P, collection of J. G. Farrell.....44
Figure 48 - Winchester & Western number 32, Gore, Virginia, April 16, 1952, William P. Price photo.....45
Figure 49 - Engine 28, a 2-6-0, was renumbered 7. Picture taken in 1890, collection of J. G. Farrell.....45
Figure 50 – Mount Savage Shop, P. H. Stakem collection.45
Figure 51 - Drawing of Austin & Northwestern #5 by Mr. Albin Lee of Texas. The lower view shows the engine after a rebuild.....46
Figure 52 - Winans camel in B&O service in Cumberland, H. Vollrath collection.....46
Figure 53 - B&O Winans camel in Cumberland, H. Vollrath collection.....
Figure 54 - Baldwin engine 27, William P. Price collection 48
Figure 55 - Baldwin-built number 37, note second air pump. William P. Price collection.....48
Figure 56 - Baldwin engine 39, William P. Price collection. 48
Figure 57 – Hayward-Bartlett Engine *Potomac* - Deane Mellander collection.....49
Figure 58 - Engine 17, a 4-4-0, J. G. Farrell Collection..... 50
Figure 59 – C&P locomotive *Maryland*, Western Maryland Railway Historical Society Collection..... 50
Figure 60 – C&P Locomotive Number 62, J. G. Farrell collection.....51
Figure 61 - Engine 6, renumbering of 17, J. G. Farrell collection.....51
Figure 62 – C&P Locomotive Number 10, Collection of WMRHS.....51
Figure 63 – Schedule for 1887, collection of P. H. Stakem51

Figure 64 - Engine 22, C&P Class K, from J. G. Farrell collection..... 52
Figure 65 - C&P engine 24, an example of Class L, collection of J. G. Farrell.....
Figure 66 - Later model tender, collection of J. G. Farrell. 52
Figure 67 - Early tender, note large oil lamp and cowcatcher, collection of J. G. Farrell.....53
Figure 68 - Wooden gondola of the Consolidation Coal Company, P. H. Stakem collection.....53
Figure 69 - Iron pot hopper of the Consolidation Coal Company, collection of P. H. Stakem..... 53
Figure 70 - C&P metal gondola, later model, road number 9046 - Deane Mellander collection..... 53
Figure 71 - C&P train with iron pot hoppers on brickyard tipple, William P. Price collection.....54
Figure 72 - C&P coach 23 in Cumberland, Deane Mellander collection..... 54
Figure 73 - The C&P Brill gas-electric, collection of P. H. Stakem..... 54
Figure 74 - C&P passenger & baggage express cars, Deane Mellander collection.....55
Figure 75 - C&P Big Hook with crew, William P. Price collection..... 55
Figure 76 – Water Tank at Mt. Savage, J. G. Farrell collection..... 55
Figure 77 – C&P schedules.....55
Figure 78 - C&P special car 605, collection of Harold Vollrath.....56
Figure 79 – Photo of big hook setting Ocean Mine windlass, Richard Arnold collection..... 56
Figure 80 - Big Hook assists with a wreck, P. H. Stakem collection.....
Figure 81 - Caboose 139 - no cupola, Deane Mellander collection..... 57
Figure 82 - Specifications of C&P Pullman car - collection of Patrick H. Stakem.....57
Figure 83 - Photo of business car - collection of Deane Mellander.....57
Figure 84 - Caboose 141 - no cupola, Harold Vollrath collection..... 57
Figure 85 - A C&P caboose with cupola, behind engine No. 21, a Baldwin, at Mount Savage. J. G. Farrell collection..... 58
Figure 86 - Eckhart Branch tunnel, William P. Price photograph.....58
Figure 87 – Frostburg tunnel clearance diagram.....59
Figure 88 - Truss bridge at Westernport, Western Maryland Railway Historical Society collection..... 59
Figure 89 - Cross and recross Georges Creek, collection of William P. Price.....59
Figure 90 – Bollman Truss Bridge over Potomac between Westernport and Piedmont. Built 1866. Picture taken 1887. P. H. Stakem collection..... 59
Figure 91 – Bridge between Franklin and Westernport over Georges Creek. P. H. Stakem collection..... 60
Figure 92 - C&P connection with the Pennsy - Deane Mellander collection.....61
Figure 93 - Mount Savage Junction Tower, note semaphores, William P. Price collection.....61
Figure 94 - Looking towards Cumberland through the Narrows. The Eckhart Branch Bridge is foreground right.....62
Figure 95 - Engine 24 takes on water at Clarysville, J. G. Farrell collection.....62
Figure 96 – Form 19, collection of P. H. Stakem..... 62
Figure 97 - C&P lantern, photo by Patrick H. Stakem..... 62
Figure 98 - C&P lock & key, Patrick H. Stakem photo.....62
Figure 99 - Coming into Ocean near Midland, William P. Price collection..... 63
Figure 100 - C&P facilities at Franklin, collection of William P. Price.....63
Figure 101 - The Mount Savage roundhouse, collection of William P. Price.....63
Figure 102 – Carlos Junction, collection of J. G. Farrell.... 64
Figure 103 - Photo of water tank at Lafferty's, J. G. Farrell collection..... 64
Figure 104 - Underside of a C&P engine, William P. Price collection..... 65
Figure 105 – Track washout, Deane Mellander collection. 65
Figure 106 – C E Detmold accident, J. G. Farrell collection..
Figure 107 – Engine in creek; crane on bridge, William P. Price collection..... 65
Figure 108 - Bridge collapse, Gannon..... 66
Figure 109 – Derail at Borden Yard - 1908. Collection of WMRHS..... 66
Figure 110 – Boiler explosion at Westernport. Collection of WMRHS..... 66
Figure 111 - Derail of WM hopper at Moscow, Western Maryland Railway Historical Society collection.....66
Figure 112 – Engine 31 backed a little too far on the Mt. Savage Tipple..... 66
Figure 113 - Piedmont Station, J. G. Farrell collection..... 67
Figure 114 - Lonaconing Station, J. G. Farrell collection...67
Figure 115 - Mount Savage station, J. G. Farrell collection 67
Figure 116 - Hay St. Station in Cumberland, William P. Price collection..... 67
Figure 117 - Interior of car, William P. Price collection.... 68
Figure 118 - GC&C's Midland Station, collection of WMRHS..... 69
Figure 119 - GC&C's Clarysville Station, collection of WMRHS.....
Figure 120 - GC&C Station at Lonaconing, collection of WMRHS.....
Figure 121 - GC&C passenger train, collection of P. H. Stakem..... 70
Figure 122 - GC&C Service, Jan. 1887, collection of P. H. Stakem..... 70
Figure 123 – Cumberland Electric Railway Co. #21 at Barn on Centre St. Cumberland, P. H. Stakem collection. 70
Figure 124 – Cumberland Electric Railway Co., Braddock Heights, P. H. Stakem collection.....70
Figure 125 – Cumberland Electric Railway Number 6, First Day of Operation, 1891. P. H. Stakem collection..... 70
Figure 126 – C&W Electric Railway Co. Combine #40, P. H. Stakem collection..... 70
Figure 127 - Engine 5 on the Eckhart Branch, J. G. Farrell collection..... 71

Figure 128 - GC&C Trestle, collection of Western Maryland Railway Historical Society..... 71
Figure 129 - PRR Facilities at State Line, Deane Mellander collection..... 72
Figure 130 - Pennsylvania Railroad in Maryland, west end of the Narrows, collection of William P. Price..... 73
Figure 131 – Intermodal - Coal Hoppers and canal boats, Deane Mellander collection.....73
Figure 132 - B&O Viaduct, 2001, Cumberland, Jody Coleman picture.....74
Figure 133 - B&O's Queen City Station, collection of P. H. Stakem.....
Figure 134 - Junction, behind Cumberland Brewing and Wellington Glass, looking east.....75
Figure 135 - Mt. Savage station. Notice the outside braced gondola. William P. Price collection.....75
Figure 136 - Engine 29 at the Queen City Station, Collection of William P. Price.....
Figure 137 - C&P at Barrellville. Station is to the left, along the main line to Mt. Savage. The Wellersburg connection is to the right. Collection of William P. Price.....
Figure 138 - Engine 10 plus 3 cars (baggage #26 and two coaches) rolls past Hay Street Station into the Narrows , collection of William P. Price.....76
Figure 139 - Wellersburg line crossing Rt. 36. C&P is on the left. Looking towards Mt. Savage, William P. Price collection..... 76
Figure 140 - Borden Yard, collection of William P. Price..77
Figure 141 - Frostburg Station, looking back towards Mt. Savage, collection of William P. Price.....77
Figure 142 - Engine 63 on Carlos Branch – J. G. Farrell collection..... 77
Figure 143 - Silk Mill, P. H. Stakem photo..... 78
Figure 145 - Engine 21 on turntable, J. G. Farrell collection 79
Figure 146 - Engine 13 at Kreigbaum hauls freight to Mt. Savage, collection of William P. Price.....79
Figure 147 - Mt. Savage brick yards dinky engine, P. H. Stakem collection..... 79
Figure 148 - Brickyards at Mt. Savage, William P. Price collection..... 79
Figure 149 – Claude L. (Jake) Ward (left) & crew, collection of the Western Maryland Railway Historical Society. Picture taken Aug 12, 1942..... 80
Figure 150 - Shops crew..... 80
Figure 151 - C&P car 101, with Arnold as Conductor, Deane Mellander collection.....81
Figure 152 - Engine 27 at Frostburg, collection of J. G. Farrell..... 82
Figure 153 – GC&C shop crew, WMRHS collection.....87
Figure 154 – GC&C locomotive on Roundhouse turntable, WMRHS collection..... 87
Figure 155 – Crossing sign at Barton, Patrick H. Stakem photo..... 88
Figure 156 – Office bldg at Mount Savage, Patrick H. Stakem photos. Note shops building in background....
Figure 157 – C&P Station at Frostburg..... 88
Figure 158 – C&P bridge, with Allegheny Central locomotive, 1989 - P. H. Stakem photo.....89
Figure 159 – CSX coal train loading at Morrisons. P. H. Stakem photo..... 89
Figure 160 – Piedmont station, P. H. Stakem photo..... 89
Figure 161 – Frostburg tunnel, collection of WMRHS..... 89
Figure 162 – WMSR steam engine 734 on Frostburg turntable. - P. H. Stakem photo..... 89
Figure 163 – Loading Facilities at Shaft, Patrick H. Stakem photo, Fall 2002.....89
Figure 164 – CSX coal train thru Narrows, P. H. Stakem photo.....
Figure 165 - Electrical Shop, Mount Savage, P. H. Stakem photo.....
Figure 166 - Electrical Shop side view, Mount Savage, P. H. Stakem photo..... 90
Figure 167 – Hay Street station then.....
Figure 168 – Hay Street station location now.....
Figure 169 - At the glass plant & Old German brewery then.
Figure 170 – At the glass plant and brewery now.....
Figure 171 – West end of the Narrows then.....
Figure 172 – West end of the Narrows now.....
Figure 173 – Looking east towards Corriganville then.....92
Figure 174 – Looking towards Corriganville now.....92
Figure 175 – Frostburg Station then.....
Figure 176 – Frostburg Station now.....
Figure 177 - Midland then.....
Figure 178 – Midland now.....
Figure 179 – Knapps Meadow then.....
Figure 180 – Knapps Meadow now.....
Figure 181 – Coney Station then.....95
Figure 182 – Location of Lonaconing Station now..... 95
Figure 183 - C&P coal hopper..... 102
Figure 184 - C&P's custom tool car..... 102
Figure 185 – Special car.....102
Figure 186 - Lettering style 1, J. G. Farrell collection.....103
Figure 187 - Lettering style 2, J. G. Farrell collection.....103
Figure 188 - Lettering style 3, J. G. Farrell collection.....103
Figure 189 - Mt. Savage Locomotive Catalog.....104
Figure 190 - Commerative Booklet..... 112
Figure 191 – Patrick H. Stakem (left) and Deane Mellander in front of C&P Office Building.....125

1.0 Introduction and Personal Foreword

Acknowledgments

I wish to acknowledge the many individuals and organizations that helped in locating and gathering the material for this new book on the Cumberland & Pennsylvania (C&P) Railroad. The Western Maryland Chapter of the National Railway Historical Society, Inc. (NRHS) and the Preservation Society of Allegany County in Cumberland, Maryland, actively participated in this project. Information and photographs were obtained from the Western Maryland Railway Historical Society (WMRHS) in Union Bridge, Maryland. I used the services of the Allegany County (Maryland) Library, the Frostburg State University Library, the Maryland Historical Society, the National Archives, the Maryland State Archives, and many other institutions and repositories. I contacted the Maryland State Roads Commission, the Frostburg Museum, the Smithsonian Institution, the Franklin Institute, the Hagley Museum, the B&O Railroad Museum, the Pennsylvania Railroad Museum, Enoch Pratt's Library in Baltimore, The Westernport Railroad Station Museum and many other organizations across the United States. I began collecting information seriously on the C&P in 1978, when my mother introduced me to Jerry Farrell.

This book project started with a meeting called by noted rail photographer William P. Price, myself, and Deane Mellander, author of two previous books on the C&P. The meeting was at Bill's mother's house in Cumberland. He suggested it was time for another book on the C&P, because new information and new pictures had become available. We were skeptical that enough new material was available to tell a new story. Bill was right. What a trip.

My good friend, and railroad expert, Charlie Soethe (1940-1994) always said, "The information is out there." He forgot to mention how well it is hidden sometimes. By the time I found that out, I was too far into the project to stop. But, he was right too.

Numerous individuals responded to our requests for information, including retired C&P employees, their families, and those who rode the C&P to work and school. Many others helped us locate obscure information and artifacts, or spent time correcting our errors and critiquing our work. Some of these people are listed in section nine. Thomas Taber of the Railway and Locomotive Historical Society was particularly helpful. If we named them all, this book would be twice as long. Thanks, everyone.

Background

This book is a follow-on to previous works, and includes new photographs and the results of 20 years of new researches. This effort involved extensive research in the archives; site reconnaissance in the

field; and interviews with retired employees. This book represents only the tip of the iceberg of the results of those activities. A database of C&P photos was compiled, and new photos were supplied to the WMRHS in Union Bridge. My notes and references will be placed with the Western Maryland Chapter, NRHS. A database of employees of the C&P was compiled. Information previously accepted as correct was cross-checked with other records. New materials in Ross Winans' handwriting were uncovered, and included. C&P equipment was traced from Alaska to Cuba. We documented this process, so future researchers following in our path will find the job a little easier. There's a lot more work to be done. Some one needs to pick up this effort.

When W. Raymond Hicks began his work on the definitive history of the C&P, he could sit down

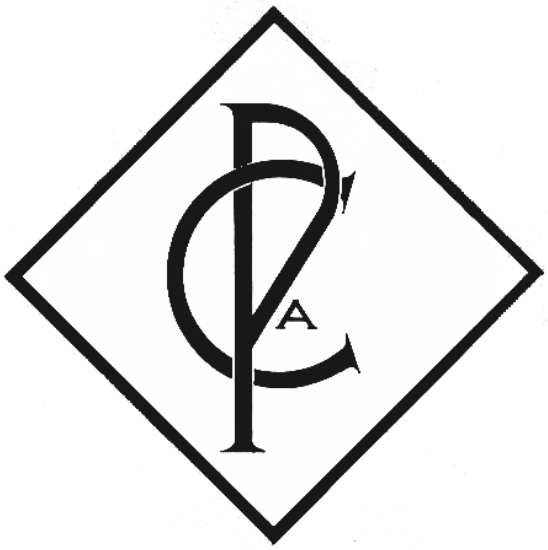


Figure 191 - The C&P logo

and talk with Mr. Claus, then the General Manager of the C&P. Some 50 years after that, we did not have that luxury. However, we did find and talk to ex-C&P men, and those who had depended on the C&P for their transportation link to school or market. Some of their stories are included here. This research led into investigations of the predecessor roads built by Allegany County mining companies in the 1840's. Their story is told in Chapter 3. We also researched the high technology manufacturing center at Mount Savage, as significant in its day as Silicon Valley is to the Information Age. That story is contained in Chapter 5.

Many of the photos date from the 19th century, and we worked with copies of copies. Many were from glass plates. In almost all cases, the photo was the only known example that could be used. The quality of reproduction varies, but we did the best we could, within the confines of over-enhancement. There are no known color photos of the C&P.

Scope

The scope of the book is necessarily greater than the C&P itself. Coverage is given to various mining company railroad efforts prior to the formation of the C&P, and to the Georges Creek and Cumberland, Western Maryland Railroad (and Railway), Baltimore & Ohio (B&O), West Virginia Central and Pittsburg (sic), the Huntingdon & Broad Top Mountain, and others. Whether as a competitor or a partner, each of these lines played a part in the C&P story.

The C&P is well defined geographically and temporally. The C&P operated almost exclusively in one county, Allegany, in one state, Maryland, except for short forays on PRR track in Pennsylvania, and on B&O trackage in West Virginia. The C&P was a railroad of the age of steam, and never operated a diesel. A single gasoline-electric car was used late in the railroad's operating life for mail and passenger service. Of the various steam prime movers employed over the years, none was ever equipped with a trailing truck. Generally, the C&P built and maintained its own equipment. The railroad was chartered in 1850, and ceased to exist in 1953. For most of its life, the Consolidation Coal Company owned the C&P, and the railroad later became part of the Western Maryland Railway.

Organization of the Book

Because of the breadth of the material to be covered, it was necessary to take different views of the C&P in different sections. There is a chronological view, an equipment-oriented view, a freight and a passenger view, a geographic view, and a look at the people who ran the railroad. Information is given for those interested in modeling the C&P, and for those with interests in industrial archeology. Also, it is hoped it is of interest to those whose parents or grandparents worked on the line, to see what their life's work was. Because of the many different views taken, some information gets repeated. If you read the book from cover to cover, you'll notice this; hopefully, it isn't too distracting. Each section is designed to stand alone, and to tell its own story. Chapter 5, on the Mount Savage Locomotive Shops, previously appeared as an article in the National Railway Historical Society Bulletin. (Ref. 95)

First, let's look at the corporate entity of the

C&P; this was the era of the railroad tycoons and the robber barons. Who were the movers and shakers? We need to define key dates in the corporate history. Then, we'll follow the chronological history of the railroad from the predecessor operations, to its establishment in 1850, to its disappearance as an entity in 1953. Next, we examine coal, and its importance to the railroad. Chapter 5 will look at the topic of the shops in Mount Savage in the context of the American Industrial Revolution. This will start with a view of the early iron works; discuss the production of the first iron rail; show the establishment of the locomotive shops; and look at how the Mount Savage shops built and maintained the C&P equipment. We explore the interaction of the Mount Savage shops with their ex-Master Mechanic, T. H. Paul, and his shop in Frostburg. The next chapter will discuss the equipment, major and minor, rolling stock and physical plant. Emphasis will be placed on new material. After that, we will discuss the theme of passenger service. Taking a geographic view, we travel the various branches of the railroad. A major new effort focuses on the people of the railroad. We define their jobs and their working conditions, and put a 'face' on the railroad operations. This includes material from interviews of surviving employees. The final section will look at what is left to see of the C&P in current times. With a set of turn-of-the-century glass plate negatives in hand, we revisit the locations now to see how things have changed. There is a full list of references, bibliographic material, and appendices with ancillary material.

2. Cumberland & Pennsylvania Railroad, the Corporate Entity

This section defines the corporate entity of the railroad. It discusses the business, the Board of Directors, the stock, organization of the company, the competition, and the eventual absorption into the Western Maryland system. The C&P was formed in the era of the robber barons, when the transcontinental railroad was still a dream in the future. There had been a financial panic in 1837, followed by a recovery in 1838. Times were good until the summer of 1839, when credit tightened again. A three-year depression followed. Even the B&O railroad was having a hard time getting construction funds. Banks didn't loan money on such speculative projects. Today, we would go to venture capitalists; then, they went to syndicates of men with money - Enoch Pratt to mention one. Canals were the competition. Not much freight moved by road. Not much freight moved very far in any case.

In 1838, The Maryland and New York Iron & Coal Company was incorporated. In those days, a company had to obtain a charter from the Maryland Legislature. The company was authorized to build a railroad from its mines at Mount Savage to the Chesapeake and Ohio Canal and the B&O Railroad at Cumberland. Both were speculative. In 1848, the company failed, because Congress had decided to lift protective tariffs on British rail. Its property was sold at auction to John M. Forbes of Boston, who conveyed it to the Lulworth Iron Company, which had been incorporated in 1846. In January 1848, Lulworth changed its name to the Mount Savage Iron Company. It operated the Mount Savage Rail Road until 1854.

March 4, 1850, marked the date of incorporation of the Cumberland & Pennsylvania Railroad Company, as approved by the legislature of the State of Maryland. That same year, the State of California was admitted to the Union. C&P's charter provided "for the construction, maintenance and repair of a railroad from the Town of Cumberland to some suitable point on the dividing line between the states of Maryland and Pennsylvania." (Section 12 of the by-laws, ref. 80). Shares of capital stock in the amount of one million dollars were offered for sale, and the Mount Savage Iron Company bought 9992 of the 10,000 offered. Private individuals bought the rest. Thus began the corporate history of the C&P -- it was always controlled by another company, never by private investors. The C&P's by-laws specified that the annual meeting was to be held on the second Monday in October, in Cumberland.

Mount Savage Iron did not pay cash for the shares; rather, it conveyed its existing railroad operations, stretching from the B&O depot in Cumberland and the Potomac Wharf to the mines near Frostburg, to the newly formed company. Thus, Mount Savage Iron was out of the railroad business directly, and the C&P was in. John A. Graham was the first president, with fellow directors John F. Winslow, Warren Delano, John M. Forbes, and Joseph B. Varnum. Forbes was mentioned in conjunction with the Lulworth transfer. Delano had an engine named after him, and is discussed further in Chapter 9.

The Maryland General Assembly, meeting in session in 1849, allowed the C&P to purchase any other railroad, and to connect to any railroad "...leading from the Pennsylvania line to the Town of Bedford, in Pennsylvania." The obligation to do so was later rescinded, and the railroad was allowed an extension to the Georges Creek. This was a major change in focus for the C&P, and would set the tone for the next 100 years. Later, the C&P would build a branch to connect with the Pennsylvania Railroad at State Line, near Ellerslie, Maryland.

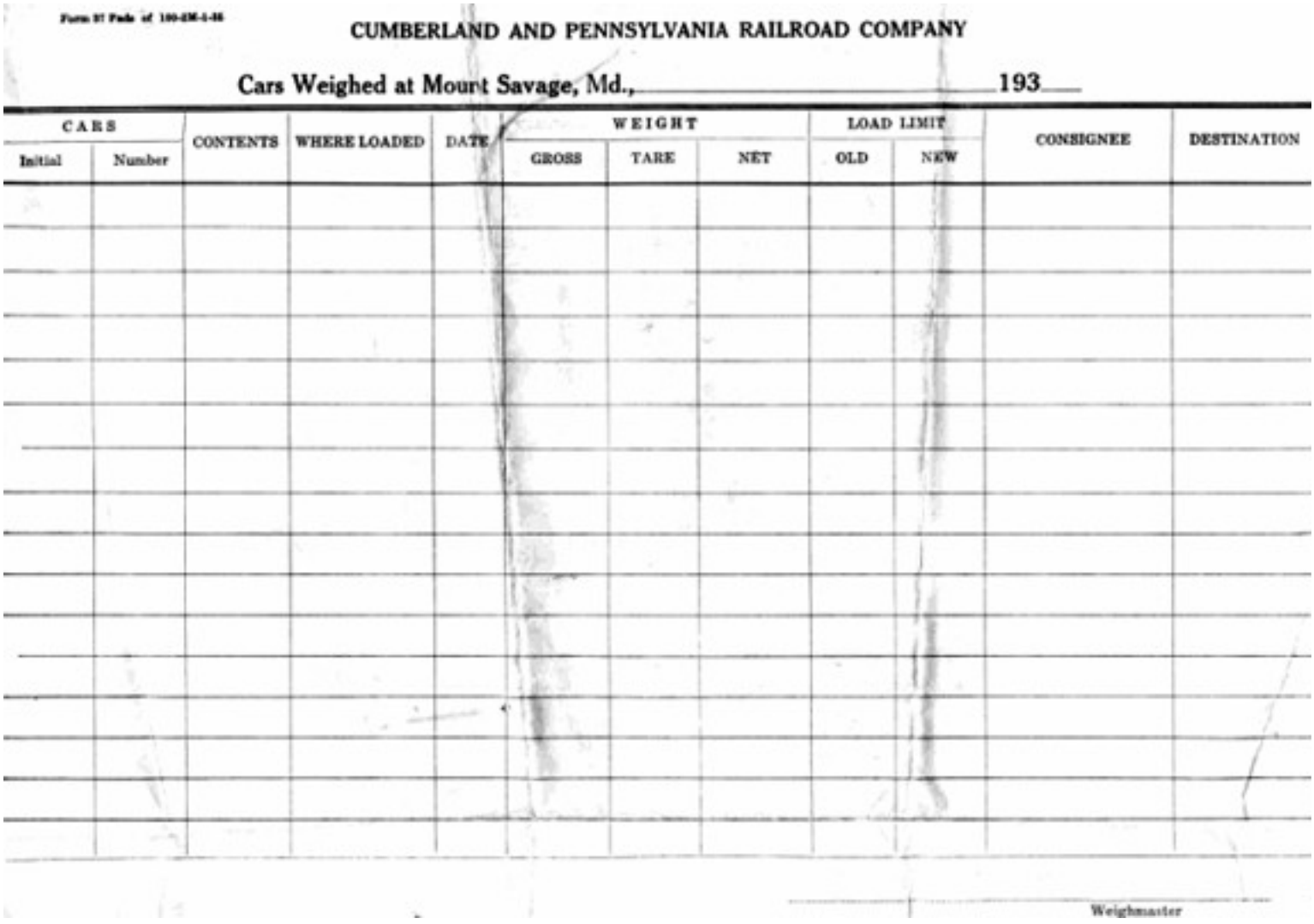
The charter of the C&P was amended in 1856

to extend the rail line from Frostburg to the Georges Creek. Unfortunately, the ridge that underlies the Town of Frostburg was in the way, and a tunnel had to be constructed. Further along the Georges Creek at Lonaconing, the C&P purchased the Georges Creek Railroad, which extended from Lonaconing to Piedmont, in October of 1863. This gave the C&P its second connection with the B&O. This action was confirmed on January 26, 1864, by the Maryland Legislature.

The Consolidation Coal Company was chartered in 1860. It was allowed to "transport persons and property on the railroad at the same rates of toll as the B&O (ref. 80)." The president and directors had the power to "purchase and place on the railroad all machines, wagons, vehicles, or carriages of any description whatever..." In 1864, it purchased the stock of the Cumberland & Pennsylvania from the Mount Savage Iron Company. Consolidation Coal's ownership of the C&P continued until the Western Maryland Railway takeover. The B&O Railroad acquired large amounts of Consol stock in 1875. So much, in fact, that B&O's Robert Garrett was named to the Consol Board in 1876. Garrett was the legendary president of the Baltimore & Ohio Railroad; the westernmost county in Maryland is named after him. Consolidation Coal didn't just own mines and railroads. They had their own fleet of 30 canal boats, and a series of coastal schooners. The company owned coal wharves at Cumberland, Georgetown, Alexandria, and Locust Point, Baltimore. They were getting into the total package -- coal from source to customer.

In January 1868, the Maryland Assembly stipulated that the railroad "must furnish cars and transportation to any owner of a mine near a railroad." This illustrates several pivotal issues. Early in the transportation of coal, it was not clear who would own the coal cars -- the mining companies or the railroads. The railroads were loath to make a large capital investment in a large number of cars before they had proof that coal was a profitable commodity. Once coal shipments began to make money, the smaller operators tended to get locked out, due to limited availability of cars and transportation. Even though the railroads had to comply with the spirit of the law, clearly smaller operators did not get premium service. This issue will surface later, when we discuss how the Georges Creek & Cumberland Railroad was built as an alternative to the Consolidation Coal Company-dominated C&P.

In another route expansion, the C&P absorbed the Eckhart Branch Railroad in 1870. Now the C&P had a virtual monopoly on the transportation of coal in Western Maryland from the Georges Creek and Eckhart regions. James Millholland was president of the C&P from 1866 to 1869, when Charles H. Dalton took the helm. From 1869 to 1879, James' son, James A. Millholland, was the second vice-president of the company. He was lured away to become General Manager, later President, of the rival Georges Creek and Cumberland Railroad. The story of the relationship of the C&P and the GC&E is marked by avarice, intrigue, and violence. According to the Interstate Commerce Commission (ICC) reports, from Jan. 1, 1866 through December 31, 1917, the C&P had revenues in excess of thirty-five and one-half million 6dollars. With expenses listed of just over twenty million, income was more than fourteen and one-half million. The C&P was clearing over two hundred thousand dollars per year (ref. 86). During most of that time, there were no corporate income taxes. Virtually all of this profit inured to the owner, Consolidation Coal Company. The ICC reports are a very valuable source of information, a snapshot in time of the state of the railroad. During World War I, control of the railroads was taken over by the Federal Government, under the United States Railroad Administration (USRA). Survey teams were dispatched to every railroad in the country. An audit team went over the company's books starting from Day 1. The engineering team, usually staying in an office/bunk car on the line, surveyed, enumerated, and documented the equipment and the facilities. Although the railroads complained long, loud, and hard about the interference, they complied. For historical researchers, this massive effort provides a detailed contemporary description of the country's railroads at their peak. Luckily, this information still



CUMBERLAND AND PENNSYLVANIA RAILROAD COMPANY

Cars Weighed at Mount Savage, Md., _____ 193___

CARS		CONTENTS	WHERE LOADED	DATE	WEIGHT			LOAD LIMIT		CONSIGNEE	DESTINATION
Initial	Number				GROSS	TARE	NET	OLD	NEW		

Weighmaster

Figure 191 – Car weight tally sheet, Mt. Savage, collection of P. H. Stakem

exists for the C&P, and stored at the National Archives and Records Administration facility in College Park, Maryland.

Personal note: my maternal grandfather, Claude (Jake) Ward, was an engineer for the C&P, and started work on the Carlos Branch. He lived in company housing in Carlos, and my mother was born there. In the National Archives, there are preserved drawings of the house, the chicken coop, and the outhouse.

3. History

This chapter follows the history of the C&P railroad in a chronological fashion, from about 1840 to 1953. Key events in the development of the railroad are discussed.

Precursor Activities

The period from 1840-1852 in Cumberland can be characterized as "waiting for the B&O Railroad and the C&O Canal." The extractive industries, and early iron manufacturing industries, were sitting on a wealth of products, and had eager markets in the East. Both the canal and the railroad were racing west to the Ohio River, and the various mining companies needed to connect with them. This section details three of those efforts.

These sections discuss the early mining railroads of Allegany County, Maryland. These roads were built in the early 1840s, driven by the anticipation of connecting with a railroad and a canal. Built by iron and coal companies, these standard gauge mine roads owned and operated their own equipment, or were operated with early B&O motive power and rolling stock. All of the lines were absorbed into the Cumberland & Pennsylvania Railroad by 1870.

The Mount Savage Rail Road

The Maryland & New York Iron & Coal Co. was chartered in 1838, and built several blast furnaces at Mount Savage, Allegany County, Maryland. These furnaces were modeled on the Georges Creek Coal & Iron Company's Lonaconing Furnace. Besides the blast furnaces, facilities were built to work the cast iron, most notably a rolling mill, where the first American made iron rail was manufactured in 1844. Five hundred tons of rail were produced for the company's railroad, following the path of the Jennings Run to Wills Creek, and through the Narrows to the B&O railhead at Cumberland.

The first rail produced at Mount Savage was of a "U" channel design, weighing 40 pounds to the yard. This rail was made in the rolling mill by reheating roughcast bar stock, and forcing it through rollers and mandrels. The steam-powered rolling mill, built in 1843, employed 900 men by the 1850's. The rolling mill closed in 1868, and was dismantled by 1875.

In February 1844, records indicate that the B&O railroad supplied engines and cars to the Maryland & New York Iron & Coal Company. The 10 mile long Mount Savage Rail Road was completed to Cumberland in 1845, the same year Florida was admitted as a state. The bridge over Wills Creek west of the Narrows towards Mount Savage dates from 1842. The B&O did not send their best equipment into mine service. Engines of the "second class" were used. This classification was based on weight and performance, not quality. To put it in better terms:

"It must be remarked that the duty of the 2nd class engines appears so much less than that of the other classes, not from inferior efficiency, but from circumstances which have given the two engines of this class less to do than they could have accomplished. This is particularly to be said of the engine of this class which has done the work of the Mount Savage Road; this engine being, in fact, one of the best in the service." (21st. Annual Report of the B&O, Oct. 1847, p. 43)

April 1, 1845, marked the date of an historic agreement between the B&O Railroad and the Maryland & New York Iron & Coal Co. It stipulated a charge of 1 1/3 cents per ton-mile to transport coal from Cumberland to Baltimore, provided the company shipped at least 175 tons/day for at least 300 days of the year. Coal was still viewed as a speculative commodity by the B&O. Wood or charcoal was the fuel of choice for industry and for home heating. Connection was made with the B&O in Cumberland in 1846. Also in that year, the B&O contracted for 15 miles of Mount Savage rail, nearly 675 tons of the 51 pounds per yard product then produced. The rail was used to upgrade the line between Harper's Ferry and Baltimore. Before this purchase, the B&O was relying totally on imported British rail.

Ross Winans of Baltimore supplied engines and rolling stock to the Mount Savage Rail Road. It is not known if this is a complete list of Mount Savage motive power. All of the listed engines are of the 0-8-0 'camel' type. Four of the engines went to the Cumberland & Pennsylvania Railroad.

In 1845, the railroad inaugurated passenger service from Mount Savage, with connections to the B&O in Cumberland. Three trains per day were provided and operated by the B&O. At that time, the trip from Baltimore took 8 1/2 hours. William Cullen Bryant wrote of his trip in the Saturday Evening Post (ref. 11), providing a fascinating glimpse into the rigors of the early travels. He writes, "At Cumberland, you leave the B&O railroad, and enter a single passenger car at the end of a long row of empty coal wagons, which are slowly dragged up a rocky pass beside a shallow stream into the coal regions of the Alleghenies."

The Maryland & New York Iron & Coal Co. failed in 1848, and the assets were sold to the Lulworth Iron Company. The Mount Savage Rail Road was transferred to Lulworth on January 14, 1848. That same year, Lulworth itself reorganized to become the Mount Savage Iron Company. Ross Winans of Baltimore delivered ten coal cars to the company on August 1, 1850, followed by five more in September. He had worked on six of the 4-wheel cars previously, in August of 1845. The Mount Savage Iron Company completed the Canal Wharf in Cumberland in 1850, and extended the rail line 3 miles north, from Mount Savage towards Frostburg to Borden Yard in 1851.

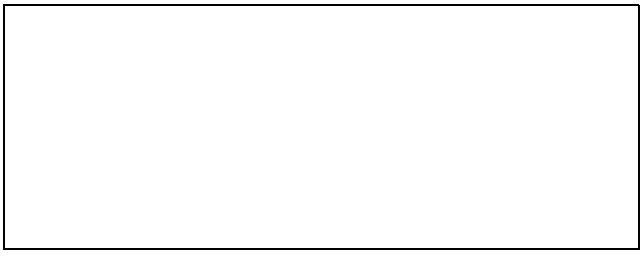
The Cumberland & Pennsylvania Railroad acquired the Mount Savage Rail Road operation in January 1854. This acquisition included the motive power, rolling stock, 14.9 miles of track from Borden to Cumberland, and the Canal Wharf. Thus, the Mount Savage Rail Road disappeared as a separate corporate entity, but became the basis for the next generation of short line railroads of Allegany County, Maryland, and a direct ancestor of present-day CSX Transportation. The critical path through the Cumberland Narrows was built, as we have seen, by the Mount Savage Rail Road. It is still in daily use, as 12,000 horsepower routinely hauls commodities up the Sand Patch grade and through the tunnel, to Pittsburgh, Chicago, and west. It is known they were thinking in this direction as well; in 1849, Lynn and the Mount Savage Rail Road incorporated the Cumberland and Pittsburg (sic) Rail Road Company.

The Georges Creek Rail Road

The Georges Creek Coal & Iron Company was formed in 1835, and chartered in the State of Maryland on March 29, 1836. The president was John Henry Alexander, who also happened to be the Maryland State Engineer. Between 1837 and 1839, the company built an iron furnace at Lonaconing. The furnace, fueled by coke, went into blast in 1839. There was abundant iron ore, limestone, water, and coal locally, but the major problem the company faced was transporting finished products to market. Production reached 75 tons per week, and local iron needs were quickly satisfied. Some products were shipped out by wagon, including such items as dowels for the C&O Canal walls. The adjacent casting house made farming implements, mine car wheels, track, and household utensils. The furnace output was in the form of cast pig iron, which was sold to be recast, or worked by blacksmiths.

Ore for the furnace came from mines on the hill behind the furnace. Tram roads were used to transport the ore to the furnace. Later, the mine tunnels were used as storage cellars by residents on the hill. Ore was also mined on the opposite hillside, above the (later) silk factory, and the area around Buck Hill. Ore also came from Koontz. The *Tilley Field* was on Hugh Weir's property, on the east side of a fork of Laurel Run. Another tunnel was located on the Philip Hansel land, just south of Tilley Field. It was reported to be six feet high, and a 100 feet long. From 1848 through 1858, ore came from the area around Pompey Smash (Vale Summit), on the south side of Dans Rock Road. In 1851, a famous military engineer had this to say about the site:

"It was only yesterday that I obtained the information to enable me to reply to your letter of the 20th. A few days after its reception, I understood that such a Company was in existence & that a Mr. Wilson was its secretary. He was then out of town, & it was only yesterday that I found him at his place of business in South St. He says that the lands of the Georges Creek Coal & Iron Company amount to several thousand acres. That one half of these lands were two years ago sold to some English Capitalists who hold a mortgage on the other half. That out of the proceeds of the sale, a large iron furnace, buildings for Agents, workmen etc. etc. have been erected on the spot preparatory for



mining. That next summer the Bal. & Ohio R.R. is expected to be completed as far as Westernport above Cumberland, which will be within 8 miles of their Furnace. That they have funds to make a road from their mines, etc."

Robert E. Lee. "Baltimore Feb. 7, 1851", correspondence to Major Richard Delafield.

The company bought the necessary machinery from the West Point Foundry in New York City. The machinery went by ship from New York to the port of Georgetown, then by canal to Williamsport. Here, the parts were loaded on wagons for the final leg of the journey. The canal charged $3.50 per ton to transport the twenty tons of machinery parts. Only the boilers made it to Lonaconing before the canal froze in the winter of 1837. Ten additional wagonloads from Williamsport arrived at the site in November.

One key ingredient of a blast furnace is the blast. The blast machinery featured a 60-horsepower steam engine fed by five boilers. The steam cylinders were 18 inches in diameter, and 8 feet long. The system operated at a pressure of 50 pounds per square inch (psi). The steam cylinder drove a blast cylinder 5 feet in diameter, and 8 feet long. This forced about 3,500 cubic feet per minute of air at 2.5 psi through the system. A very large iron regulator smoothed the airflow from the reciprocating cylinder. The air flowed through a series of pipes in the boiler furnaces and was heated to 700 degrees F. The heated air then entered the blast furnace through two big water-cooled nozzles called *tuyeres*. When the water supply failed, the furnace had to be operated with a less efficient cold blast. Seven tons of coal were required to produce one ton of the cast metal. The first run of good iron came from the furnace on May 17, 1839. By May 23, the furnace was producing six tons per day.

With production going well, iron piled up in Lonaconing. In 1842, sales of pig iron to foundries in Cumberland were begun, with delivery by wagon. An adjacent sawmill and lumberyard, also owned by the company, recorded sales to the Mount Savage Iron Works, then involved in building their own furnaces. In the fall of 1842, pig iron was offered to the B&O railroad at a price of $29 per ton, but delivery was still a problem. After experimenting with a horse powered tram road, the company realized that a rail line, built down the Georges Creek Valley toward the Potomac River at Westernport, would be the answer to the transportation issue. The rail line was finished from Lonaconing to Piedmont in 1853, where it connected with the recently arrived B&O Railroad. It was, unfortunately, too late to provide the needed market access for the Lonaconing Iron Furnace. The furnace in Lonaconing was abandoned in 1855, and the canal was never extended past Cumberland. Coal, not iron, became the most important commodity shipped out of the region on the railroad.

A major figure in the Lonaconing Iron Furnace was Christian Edward Detmold, (1810-1887). A civil engineer, born in Hanover, Germany, Detmold had entered the U.S. at age 16, en route to Brazil to join the Army, but instead stayed in the U.S. He did surveys for a railroad in Charleston, South Carolina; won a $500 prize for a horse treadmill car from the Charleston & Hamburg Railroad & Canal Co.; and worked for the U.S. War Department on the construction of Fort Sumter. From 1845 to 1852 Detmold was involved in iron production at Lonaconing. He was responsible for the construction of the tram road in 1847 from Lonaconing to Clarysville. This line connected with the Eckhart Branch Railroad, constructed by the Maryland Mining Company. Detmold leased the furnace; overhauled the boilers; and rebuilt the engine house. The furnace went back into blast in May 1846, and Detmold had a flourishing business by 1847. He was producing 2500 tons of pig iron annually. The company, perhaps jealous of his success, declined to renew his lease. He moved on to direct construction of the Exhibit of Industry, at the Crystal Palace in New York, which opened in July of 1853. C. E. Detmold is remembered by having both a town, and a C&P engine named after him.

After taking back the furnace facility from Detmold, Georges Creek Coal & Iron operated it sporadically. The furnace produced 1,860 tons of pig

Figure 191 - The furnace at Lonaconing, Patrick H. Stakem photo.

A.H. Stump	2-6-0	S & P	1852		C&P No. 5, scrp 1875
Georges Creek	0-8-0	Baldwin	1853	Builder number 521	C&P No. 6, scrp 1876
Lonaconing	0-6-0	Baldwin	1853	Builder number 558	C&P No. 7, scrp 1874

iron in its last active year, 1855. It was then shut down and abandoned. Harvey (ref. 21) states that the furnace facility was too technologically advanced for its time.

Figure 191 - Locomotive Georges Creek, J. G. Farrell collection.

However, it provided an impetus for the mining industry and for the construction of the railroad, and served as a model for a similar iron working facility built at Mount Savage. There was technology sharing and cooperation between the facilities at Lonaconing and at Mount Savage.

The furnace complex at Lonaconing was visited by the Superintendent of Construction for the B&O, Casper Wever, Esq., in June of 1839. Shortly afterwards, the shareholders of the C&O Canal visited. With the furnace up and operating, the facility expansion plans included a forge and rolling mill. However, these were never built. The company began to concentrate on the railroad to meet with the canal and the railroad at Westernport. By 1850, surveys were complete. The B&O reached Piedmont, across the Potomac River from Westernport, in July of 1851. In September of that year, the railroad construction began up the Georges Creek. The railroad was opened on May 9, 1853. In June, a total of 1,061 tons of coal were shipped. In all of 1855, 225,000 tons of coal were shipped, sometimes in 102 car trains. Iron ore or cast iron did not figure into the shipments. In 1856, the line was extended from Lonaconing northward to connect with the C&P from Frostburg. The Georges Creek Coal & Iron Company's 9.2 mile railroad was acquired by the C&P on October 23, 1863. The shops and engine house at Lonaconing were used until 1867. These were located just north of where the road to Dans Mountain State Park merges with State Route 36, at Water Station Road, north of Lonaconing. Interestingly, this section of line still sees use for on-demand coal service. In 1991, the Georges Creek subdivision of CSX hauled 195,197 tons of coal over this line, as compared with the 225,000 tons by the Georges Creek Rail Road in 1855.

Locomotive builders Baldwin and Smith & Perkins sold a locomotive and rolling stock to the Georges Creek Company. Ross Winans of Baltimore sold wheels and axles to the GCC&I for mine cars. Passenger service was provided on the Georges Creek Rail Road with their 2-6-0 engine. A list of motive power for the Georges Creek Rail Road has been compiled, but it is not known if this is a complete list. All of the listed engines were transferred to Cumberland & Pennsylvania Railroad ownership, as part of the buyout. No pictures of the 2-6-0 or 0-6-0 engines are known to exist. Locomotives were generally named after geographical references, or persons of significance.

The Eckhart Branch Railroad

The Maryland Mining Company (MMC) was incorporated in Maryland on March 12, 1829. The company built the railroad from Eckhart to Wills Creek, a length of 9 miles, and later extended the line as the Potomac Wharf Branch (14 miles total). The railroad was absorbed into the Cumberland & Pennsylvania in 1870.

Figure 191 - C&P Eckhart Facilities, collection of J. G. Farrell

The Maryland Mining Company line from Eckhart Mines to Wills Creek following Braddock Run was completed in 1846. Wills Creek was bridged at the west end of the Narrows with a four arch brick structure that stood until removed for flood control in 1998. The railway included two tunnels, the one closest to Cumberland (lower tunnel) was 506 feet in length, and the upper tunnel was 335 feet long. The tunnels were separated by 0.6 mile. The grade reached 3 percent in places. This branch was also the location of a large horseshoe curve, at Clarysville, with 180 degrees of a 30-degree curvature. The construction of Interstate 68 from the Vocke Road intersection to the bridges at Clarysville removed most of the evidence of the Eckhart Branch railroad in that area, including the tunnels.

The Potomac Wharf Branch was built between 1846 and 1850, as an extension of the Eckhart Branch into Cumberland. The Maryland Mining Company's rail line connected with the Mount Savage line at the west end of the Narrows. After passing through the Narrows on the North (B&O) side, it recrossed Wills Creek on a bridge (no longer present) just east of the present Route 40 road bridge. Some of the tracks may still be seen in 1999 near some billboards, and a gas station. A picture of a classic wreck scene, circa 1860, shows that bridge collapsed into Wills Creek, with the engine C.E. Detmold hanging on. The original Potomac Wharf Branch bridge was a 203-foot deck plate girder structure, with two support pillars in the creek. It was built in 1849, and rebuilt after the Detmold engine accident. It was destroyed in the flood of 1936, and was not replaced. The Potomac Wharf Branch was used to carry coal to flat-bottom Potomac River boats, and to canal boats, before the canal wharf facility was completed. The flat-bottom riverboats ferried coal down the Potomac to Georgetown and Alexandria during the spring, when the water level

Figure 191 – Potomac Wharf Branch Track, looking back toward Cumberland. P. H. Stakem photo. Circa 1987

was high enough for navigation. The boats were sold with their cargo, as there was no feasible way to get them back upstream. After the C&O Canal reached Cumberland, canal boats could enter the Potomac River through the guard locks. The original Potomac River wharf had been built by John Galloway Lynn of Cumberland, and was known as the Lynn Wharf. It ran along what now is Avirett Avenue. It was deeded to the Maryland Mining Company in 1849.

Figure 191 – Maryland Mining Company Stock Certificate, courtesy, Washington Historical Autograph and Certificate Organization

The Cumberland Coal & Iron (CC&I) Company, chartered in 1850, purchased the Maryland Mining Company's mines and railroad property, including the village of Eckhart, in April 1852. The rail line was extended to the nearby Hoffman mines in 1859. Cumberland Coal & Iron was in turn acquired by the Consolidation Coal Company in 1870. At that point, the Eckhart Branch became part of the Cumberland & Pennsylvania Railroad, also owned by Consolidation Coal. However, for a period of 20 years, from 1850-1870, the Eckhart Branch Railroad operated independently of the C&P.

The B&O Railroad provided early motive power and rolling stock to the Allegany County coal short lines. The B&O supplied at least eight camel engines to the Maryland Mining Company, as evidenced by Winans' notes. These included B&O engines 161, 162, and 163, among others. In addition Ross Winans, among other builders, sold engines, tenders, and coal cars to the various mining companies. Passenger service was provided on the Eckhart Branch sometime before 1853, and the C&P continued to use a gravity passenger car on that line. The passenger car was then hauled back up the mountain at the end of a string of empty coal hoppers. Servicing, watering, and coaling facilities were located in Eckhart. The C&P maintained an engine house and servicing facilities here

A complete list of Eckhart Branch motive power is not known. All of the listed engines below, except the first, are of the camel type. Hicks (ref. 23) recounts that the transfer records in the Maryland State Archives (from MMC to CC&I) mention five engines. Two of these are from Winans, but lighter in weight than the listed engines, and three are much lighter. Rankin (ref. 46) mentions that the company motive power included three first-class engines, two second-class, and forty-one horses and mules. Rolling stock included sixty-eight iron hopper gondola, scow, and passenger cars in 1853. No pictures of any of these engines are known to exist. The transfer records mention "2 engines of 23 ton's weight, 1 second-class coal/wood burner of 15 tons, 1 English make, American built of 15 tons, and 1 second class engine of 12 tons." The use of the *Enoch Pratt* is questionable, although it may be the "American built of 15 tons" mentioned. A 2-2-2 wheel arrangement is unusual. The Robert Stephenson *Patentee* of 1833 was of this pattern. American manufacturers known to have copied Stephenson's work from Britain include Baldwin, Rogers, the Locks & Canal Company of Lowell Massachusetts, and the West Point Foundry. No extant records support the sales of an engine from any of these companies to Eckhart. The West Point Foundry had supplied the machinery to the Georges Creek Coal & Iron Company for the blast furnace at Lonaconing.

The *Eckhart* was a "second class" engine, with 17-inch cylinders. The *Braddock* was a "first-class" engine, with 19-inch cylinders. Winans customarily gave a thirty-day trial period to the purchasers. The engine *Mountaineer* was delivered on December 1, 1849, and accepted on Jan. 8, 1850. The engine *Cumberland* cost $11,000 and was delivered

Eckhart Branch Motive Power Roster

Builder		type	date	Name (1)	company		disposition
1. unknown	2-2-2	-?-		*Enoch Pratt*	MMC		unknown
2. Winans	0-8-0	1849		*Eckhart*	MMC		rblt 1868, to C&P No. 27
3. Winans	0-8-0	1849		*Mountaineer*	MMC		to C&P No. 28. scrp. 1876
4. Winans	0-8-0	1851		*Fire King*	MMC		unknown
5. Winans	0-8-0	1852		*Black Monster*	CC&I	**	to C&P No. 29
6. Winans	0-8-0	1854		*Braddock*	CC&I		to C&P No. 31, renum. No. 30
7. Winans	0-8-0	1853		*Cumberland*	CC&I		to C&P No. 30

Note for table:
** *Black Monster* same specifications as B&O No. 106 and 108. 19" x 22" cylinders, 43" drivers.

May 28, 1853. The engine *Fire King*, delivered June 30, 1851, came with a 4-wheel tender, holding 1 1/2 tons of coal, and 900 gallons of water. The engine *Frostburg* went into service on Nov. 20, 1852.

Service on the Eckhart Branch was hard, as evidenced by a series of correspondence with the Winans Works in Baltimore in 1856. On June 16, 1856, CC&I ordered a replacement right-hand crosshead for the engine *Braddock*. The *Braddock* had gone into service on July 1, 1854. On September 24, the same part was needed for the engine *Eckhart*. The *Eckhart* had been placed into service on August 1, 1849. A frantic telegram on December 9, 1856, emphasizes the need for urgency for shipment of the replacement left-hand crosshead for the *Eckhart.* The engines *Black Monster* and *Cumberland* were at work at that time. The parts were delivered to the B&O Railroad at Cumberland. It is not known whether the repair work was done at Cumberland, or at Eckhart. The engine *Eckhart* was later rebuilt at the C&P shops in Mount Savage in 1868.

At the opening ceremony of the Maryland Mining Company Rail Road on Wednesday, May 13, 1846, a special train took the board of directors and guests from Cumberland to Eckhart, and returned. About two weeks later, an accident occurred on the line near the junction with the Mount Savage Rail Road, at the west end of the Narrows. A dozen passengers were injured when the brakes burned out on the train, and it overturned due to excessive speed. It was noted in a contemporary newspaper account that these were the same brakes commonly used on the Baltimore & Ohio line, but they were not adequate for the grades of the Eckhart Branch. Flooding in July of 1846 also caused extensive damage to the line's lower end.

A word on the proper name for the line is in order. The term *Eckhart Branch* seems to date from the later 1870's. In a schedule published in the Frostburg Mining Journal, the line is referred to as the *Cumberland Branch*. It seems to depend on which end you started from. In the earliest accounts, the line is simply called the Maryland Mining Company Railway. During the Civil War, the rail line was probably used to transport supplies and patients to the Military Hospital facility at Clarysville. (ref. 100).

From 1846 to 1870, the Winans camel engines of the Eckhart Railroad eased the heavy coal loads down the mountain, around the horseshoe curve, and through the tunnels to Cumberland. These were the days of manual car brakes, and link-and-pin couplers. Brakemen ran across the tops of cars, in all sorts of weather, to manually set and release the handbrakes. Later, the camels would haul the empty coal hoppers and the lone passenger car back up the mountain in preparation for another day's work. The legacy of the Eckhart Branch Rail Road continued with the C&P, and with Western Maryland equipment into the 1950's. WM decapods went where Winans camels blazed the way.

Before World War I, locomotive manufacturer Baldwin and the C&P management discussed the building of a small, articulated engine to work the Eckhart Branch. The catalog Baldwin 2-4-4-2 was rated at 44,200 pounds of tractive effort, and grossed 188,000 pounds. It was rated for 475 trailing tons on a 3 percent grade. It used 51-inch wheels, and 200-psi boiler pressure. It was a Mallet design, with the high-pressure rear cylinders rigidly attached to the frame, and the front low-pressure cylinders pivoted, in the manner of a pilot. The high-pressure cylinders were 19” x 26”; the low pressure ones were 29” x 26”. Baldwin built at least two engines to this design for the Little River Railroad in Tennessee. The first was rejected, and eventually went into logging service on the west coast.

C&P’s Master Mechanic Sarby calculated he could get the same tractive effort by boring out the cylinders on a C&P Class *L* 2-8-0. Engine number 23 was selected. Number 23 was a Mount Savage-built

Parameter	C&P Class L	Baldwin articulated	No. 23, bored out 1”	WM decapod	Camel Winans	
wheel size	50	51	50	52	43	inches
steam pressure	200	200	200	180	95	psi
wheels	2-8-0	2-4-4-2	2-8-0	2-10-0	0-8-0	
cylinders	21x26	19x26 29x26	22x26	25x28	19x22	inches
weight	174,500	188,000	174,500	195,500	74,300	pounds
tractive effort	39,000	44,200	42,785	51,500	14,915	pounds

engine that entered service in October of 1904. For some reason, Sarby was fired a short time later. The engine remained in service until scrapping in July of 1944.

There are no details on the conversion, but if we assume that the cylinders were bored an additional 1", the tractive effort would have increased by about 10 percent. This is following Baldwin's published formula for tractive effort (ref. 78). Boring out the cylinders would have required new pistons, of course. The weight of the unit would not have changed significantly. The steam capacity of the boiler would have been sufficient for the low speed operations of the Eckhart Branch. One of the limitations of the Eckhart Branch, besides the tunnel clearances, curves, and grade was the limited load capacity of the Wills Creek Bridge, at the West End of the Narrows.

After the acquisition of the C&P by the Western Maryland, the Eckhart Branch was worked by WM number 1102, a Baldwin decapod (wheel arrangement 2-10-0*)*. This class of engine was noted for its light axle loading, and had no flanges on the main drivers, for negotiating sharp curves.

The figure of merit on the Eckhart Branch was the number of empty hoppers you could drag uphill. This in turn depends on the rolling resistance of the car, the grade resistance, and the curve resistance. The Winans engine could handle 40 hoppers, based on a tare weight of 3 tons for the Winans designed 6-wheel hoppers in use in 1854. The later engines would haul 55-ton capacity hoppers, of tare weight 20 tons. The capacity of a standard C&P class L engine would have been 21 cars. The articulated engine could have handled 24. The later decapods did 28 cars.

American Railroad Journal, D. K. Minor, Ed, Saturday June 6, 1846, p. 362, article on "The Maryland Mining Company, and Their Works." says:
"About two miles from Cumberland, Wills Creek is crossed by a bridge, which deserves a passing notice. It is two hundred feet long, and has three arches of 45-foot span each, supported (sic) by stone piers and abutments. The superstructure is of brick masonry. It is, exactly what we should call a capital bridge and furnishes the very best evidence of the skill and fitness

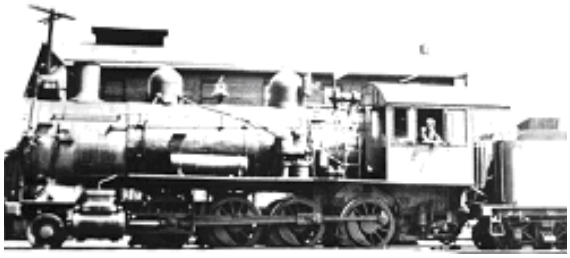


Figure 191 - Engine 23, collection of J. G. Farrell

of the engineer Col. Davidson, under whose direction the work has been done. As to strength, the freshet of Saturday last, which brought the water up two feet higher than the spring (?) line of the arches, has fully and satisfactorily tested it. It cost $6,500, a sum so low that we would have supposed it impossible, had we not the best authority for our statement."

"The total elevation overcome from Cumberland to the mines, is 1,134 feet in 9 1/4 miles - 5 miles of which have a grade of 135 feet to the mile, intended to be worked by the powerful 25-ton locomotives of the Baltimore and Ohio Railroad. These engines are calculated to haul up to the mines a train of 25 iron cars, weighing 2 1/3, and carrying 7 tons each. The superstructure is laid in a substantial manner with a Z rail of 38 pounds to the yard, according to the plan of B. H. Latrobe. The Z rail used on this work was manufactured during the last year at the Mount Savage iron works, located on "Jennor's (sic) Run"...drawn by the engine *J. Quincy Adams*, which, although it is old and has seen much service, still has, like him who name it bears, an abundance of steam power."

The Civil War period 1862-1866

The Civil War did not have much of an impact on the C&P. The bridge over the Potomac at Westernport was removed to protect the rolling stock from rebel raids. South of the Potomac, the B&O railroad was hard hit, losing motive power, rolling stock, and facilities in Keyser and Piedmont, West Virginia.

A Confederate raid by McNeill on Piedmont on May 5, 1864 made smoking ruins of the B&O facilities and rolling stock (ref. 99). Riding into the town on a captured B&O locomotive, McNeill captured the two roundhouses, several shops, nine locomotives, and 22 freight cars. There is no record of damage to any C&P equipment. North of the river, things remained fairly quiet. Some horses were stolen by rebel raiders from a stable in Lonaconing. Maryland was a border state, both geographically and politically. Western Maryland did not adjoin a southern state, since the western part of Virginia had decided not to join the eastern part of that state in secession. South of the Potomac across from Western Maryland lay the new "northern" state of West Virginia. War-time demand for coal was high. When the B&O was severed at Harper's Ferry by Stonewall Jackson, the canal from Cumberland became the coal lifeline to the Nation's capital. In any case, the C&P brought the coal to the trans-shipment point at Cumberland from Georges Creek and Eckhart.

Figure 191 - Midland Trestle, collection of Western Maryland Railway Historical Society

The miners of Allegany County, mostly recent immigrants, were practical men. They chose paychecks over politics, and life went on as usual. Generally, Allegany County was pro-Union. A Georges Creek militia unit, the Detmold Riflemen, was formed in response to the war. It later became Company 'A" of the Second Maryland Infantry, the Potomac Home Brigade, attached to the Railroad District, 8th Army Corps. This unit guarded the B&O Railroad, and later saw action in the Shenandoah. Lincoln's draft quota for Allegany County in October 1861 was 872 men, but 1,473 volunteered for the Union Army. The Confederate sympathizers drifted South, then came back after the war and picked up where they had left off. Each had served the cause he believed in.

The years 1866-1917, and the GC&C

After the Civil War, James Millholland came down from Pennsylvania to set up the C&P shops. A period of locomotive rebuilding and experimentation followed, culminating in the production of engines at Mount Savage. However, competition soon reared its ugly head, and the mine companies got a choice, with the coming of the rival Georges Creek & Cumberland Railroad.

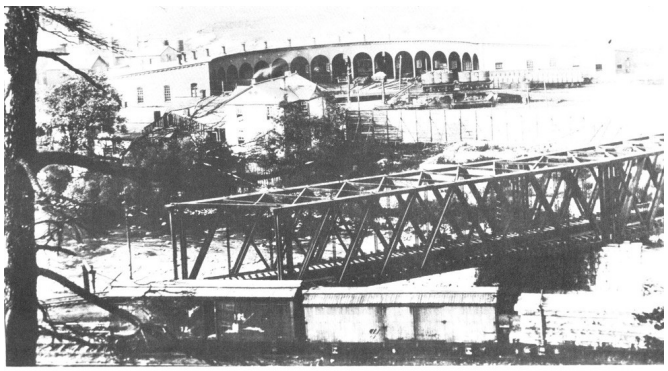
The Georges Creek & Cumberland Railroad was the child of two mining companies, the Maryland Coal Company, and the American Coal Company. In the Georges Creek Coal Region of Allegany County in the 1870's, the transportation monopoly was controlled by the Cumberland & Pennsylvania (C&P) Railroad, which was owned by the Consolidation Coal Company. Rival companies could not get competitive rates to move their coal from the mines to the B&O and the canal. The solution was seen as two-fold: build a second railroad; and involve the B&O's rival, the Pennsylvania Railroad. The GC&C should not be confused with the earlier Georges Creek Rail Road, built in 1853 to allow shipment of iron products from the furnace at Lonaconing to the planned canal and railroad terminus at Westernport.

The GC&C was born out of controversy and

Figure 191 – Overview of GC&C and C&P tracks at City Jct - WMRHS collection

competition with the C&P, and this climate of anti-cooperation continued. The GC&C had to fight its way past the C&P into Cumberland, and then fight for the right to reach the canal over B&O trackage. The first fight was at the west end of Cumberland, an area known as City Junction. The GC&C had to cross the C&P's Potomac Wharf Branch, which was there first. The Pennsylvania Railroad in Maryland line had been built from the Pennsylvania state line to the west side of the Narrows. It was their intent to continue down the north side of the Narrows, along with the C&P and B&O mains, to Cumberland. The C&P persuaded its rival to bridge Wills Creek, and continue down the south side of the Narrows, then cross the C&P's Potomac Wharf Branch at City Junction. After the line was built to City Junction, the C&P changed its mind. It kept an engine parked at the intended crossing point, blocking construction.

The engine was a bit late getting back into position once and the GC&C trackmen forced the crossing.



George's Creek and Cumberland Railroad — Located its 18 stall Roundhouse near the Cumberland Narrows at the north end of Centre and Mechanic Streets. Bridge is across Wills Creek.

Figure 191 - Georges Creek & Cumberland roundhouse, Cumberland, P. H. Stakem collection.

The C&P trackmen tore it out. Tempers flared. The

C&P raised its track bed, making crossing impossible. The final issues were decided in court, in favor of allowing the GC&C crossing with due compensation. Then, the B&O did not want to grant the GC&C trackage rights to reach the canal terminus, and that issue also had to be resolved in court.

The Western Maryland Railroad purchased the controlling stock interests of the GC&C on January 17, 1907. The GC&C was a small but key part of the Jay Gould master plan for a transcontinental railroad link. The financial panic of 1907 put an end to these grand schemes. Bankruptcy followed for the Gould syndicate, and the Western Maryland Railroad. Operation of the GC&C was taken over by the newly reorganized Western Maryland Railway in July of 1913. A full merger and consolidation took place on January 23, 1917. The line was operated until 1939, when the Western Maryland abandoned the track from Georges Creek Junction to Midland. Mines west of Midland were then served through an interchange with the C&P at Jackson Junction, north of Lonaconing.

The GC&C motive power all came from the Pittsburgh Locomotive and Car Works, later a part of the Alco empire. Ten engines were rostered. There were nine engines of the 2-8-0 wheel arrangement for freight, and a 4-6-0 passenger engine. All of the engines went to the Western Maryland, and all were reported scrapped between 1914 and 1917. For rolling stock, the GC&C rostered predominately coal hoppers; two hundred were listed for the year 1884. In addition, the 1884 Poor's Manual of Railroads lists two boxcars, and 10 platform cars. The various Interstate Commerce Commission valuations list 24 GC&C cabooses for 1911 and 1912, and 20 for the year 1913. The GC&C also had several passenger cars, including an open-sided observation car.

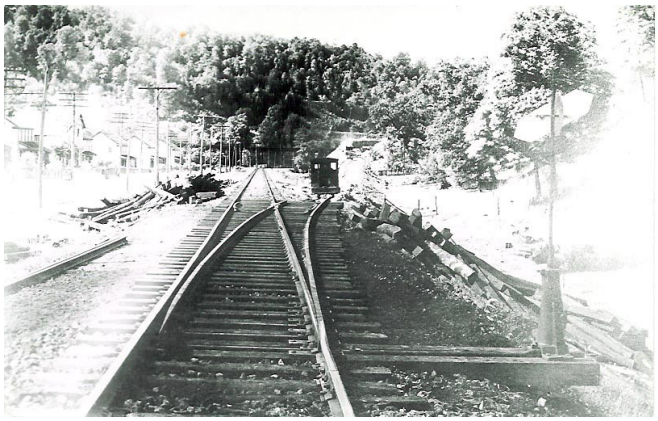


Figure 191 - The C&P-GC&C interchange, Jackson Junction, near Lonaconing. Collection of the Western Maryland Railway Historical Society.

The GC&C favored big trestles. During construction of the line, a single contract for 1.5 million feet of pine trestling lumber was let. Bridge 42 was the Winchester Road Viaduct, which crossed just south of the C&P Bridge.

Uphill of the line's two tunnels on Red Hill was Bridge 50, the Percy Hollow Trestle. Past Clarysville was Needham's Viaduct, also called Bridge 81. Clises Run Viaduct, Bridge 115, at Cabin Run was a major structure. This was initially of wooden construction, and then later replaced with a steel structure. The stone abutments still exist. Bridge 137, the Midland viaduct, bisected the town. The stone abutment for the northern end can still be seen between Routes 936 and 55, at the northern end of the town.

Figure 191 - GC&C passenger engine, JG Farrell collection

The line was originally constructed with 67-pound steel rail, purchased in Reading, Pennsylvania . Some 56-pound iron rail was used on the Pennsylvania Railroad in Maryland. The gauge of both roads is listed by Poor's (1884) as 4' - 9", instead of the more common 4' - 8.5". The GC&C

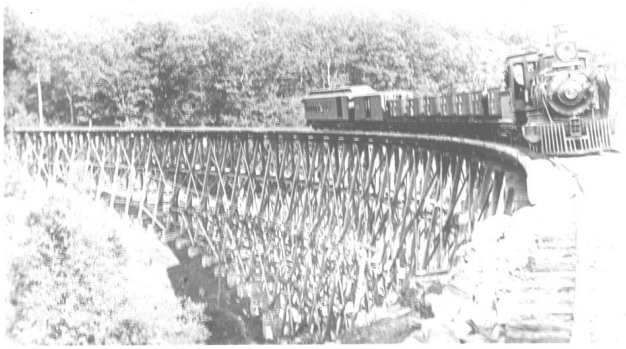


Figure 191 - Georges Creek & Cumberland Clises Hollow Trestle, collection of the Western Maryland Railway Historical Society.

interconnected with the C&P near Lonaconing, and with the B&O in Cumberland. A block signaling system with semaphores was used. Telegraphed instructions were used to control the flow of traffic. The GC&C included a water tank near Mertens, and another near Needham's Viaduct, at Milepost 10. There was a water tank below Midland at milepost 16, fed by a dam. There was a tool house and passenger station at Vale Summit, and at Pine Hill, at Lonaconing. A station was maintained at Midland. A tower controlled the Georges Creek Junction. The most impressive structure was the roundhouse and turntable at City Junction. The original roundhouse was build before 1885.

Beyond Midland, there was a bridge over Douglas Run, the stone ends of which can also still be seen. A turntable was located at Midland Junction. Bridges were necessary at Milepost 16 and 17 to cross and recross Georges Creek, the road, and the line of the Cumberland and Westernport Electric Railway. Bridge 06 crossed the Pine Hill Plane. Bridge 20, the Jackson Wye viaduct, was located on the Jackson Branch, near milepost 19. A trestle was necessary over Castle Run at milepost 20, on the branch to the Koontz mine.

From 1869 to 1879, James A. Millholland, son of the James who set up the C&P shops, was the second vice-president of the C&P. He was lured away to become General Manager, later President, of the Georges Creek and Cumberland Railroad. Part of the deal was his new house, located behind the Emmanuel Episcopal Church on Washington Street in Cumberland. The GC&C started as two separate pieces, the line to Vale Summit and Lonaconing called the GC&C, and the connection to Pennsylvania, called the *Pennsylvania Railroad in Maryland.* These were merged under the name Georges Creek and Cumberland. Later, the Connellsville Extension of the Western Maryland Railroad was built under the umbrella of the GC&C. On July 1, 1913, the GC&C was formally absorbed into the Western Maryland system, and the Connellsville extension became WM trackage, as did the Pennsylvania Railroad in Maryland. The remnants of the Gould empire were scattered and collected by the survivors. This ended the hope of extending the original GC&C line.

Figure 191 - turntable at Midland Junction, collection of the WMRHS.

Figure 191 - Millholland House, Cumberland, Patrick H. Stakem photo

World War I era, 1917-1923

Although the World War meant increased traffic for the railroads, it also brought government control under the United States Railroad Administration. The government appointed board did not give up control of the railroads until 1922. The C&P was placed under that watchful eye of the B&O Railroad. This was also the period of the ICC valuation, which gives us so

Figure 191 - GC&C Shops Crew, P. H. Stakem collection

much information on the state of the railroad at that time. In Allegany County, new factories opened to provide employment for tens of thousands. The factories relied on the railroads to supply fuel and raw materials, and to ship finished goods.

The Depression, and re-growth

After World War-I, there was a period of continued industrial expansion and job creation up until late 1929. Then, the economy collapsed, and stayed depressed for a decade. There were layoffs and reduced hours in the coal and railroad businesses, as companies struggled with the reality of the depression. It would unfortunately take a new war to get the freight and passenger traffic back to record levels.

Toward the end of this era, people were depending less on the railroad for transportation, and more on private automobiles. On the C&P, the gas-electric car replaced steam passenger service, but ridership declined as more people bought automobiles. Mobility increased, and people wanted to be free of the rigid train schedules that had dictated the pace of their lives. Truck delivery replaced the dependence on the railway express service. New horizons opened up, and people became more mobile. Labor unrest and unionization marked this period as well. In August of 1937, the C&P participated in an exposition in Cumberland celebrating 92 years of transportation in Allegany County.

World War II, and the post-war

Another World War brought labor shortages, and increased demand for coal and transportation services. At the same time, key raw materials such as steel and coal and manufactured goods such as locomotives were rationed and allocated by the government. Most war material was shipped by rail. The wartime demands wore out the existing railroad infrastructure. American railroads were ready for dieselization in the 1950's. The steam engines had done their job, and they were worn out and tired. The C&P had done its duty with what it had to work with. It fed coal to Cumberland, as it had for 100 years.

Being low on the priority list, the C&P never got any diesels. Until its disappearance into the Western Maryland Railway, it operated steam and steam alone. The sole exception was the gas-electric passenger car, and it was gone before the end of the war. There would be no more passenger service on the C&P. First generation Western Maryland diesels did venture onto C&P rails to move coal. Later Chessie and CSX locomotives could be found doing the same tasks as the Winans camels had been designed for.

Consolidation into the Western Maryland

The Western Maryland Railway wanted the C&P's access to the coal mines of Western Maryland. It had no real use for the old, worn out equipment and facilities. None of the unique C&P locomotives were rostered on the WM. The remaining wooden cars were scrapped as quickly as possible. Some equipment survived for a while as maintenance-of-way rolling stock.

The shops at Mount Savage were closed, and the equipment was moved to the Western Maryland's operations center at Maryland Junction, across the Potomac River from Cumberland in Ridgeley, West Virginia. Most of the Mount Savage equipment was scrapped. The C&P office in Cumberland was closed, and truckloads of records were simply hauled away and burned. At the pattern shop in Mount Savage, wooden casting patterns dating back to Millholland's time were used as firewood. Employees took home tools, lanterns, keys, locks, and handcars. The Western Maryland didn't care - it had no use for this 'foreign' equipment.

Figure 191 - Tearing up the Mount Savage Yards, collection of the Western Maryland Railway Historical Society

There is an interesting story told about the new water tank that the C&P had ordered just before the merger. The parts were stuck in a shed and forgotten, and diesels don't need water tanks. An enterprising employee salvaged the vast amount of 3" thick redwood, and built a cabin on Deep Creek Lake.

The C&P men were absorbed into the Western Maryland seniority system, but always maintained a separate identity. Many of those who could, retired at the time of the merger. The C&P's job was finished. Most of the branches would be operated with Western Maryland equipment for a while, and then be abandoned.

The same fate was awaiting the Western Maryland, with a merger into the Chessie System in the 1970's, then reorganization into CSX. The coal still moves, but the names on the sides of the equipment changes.

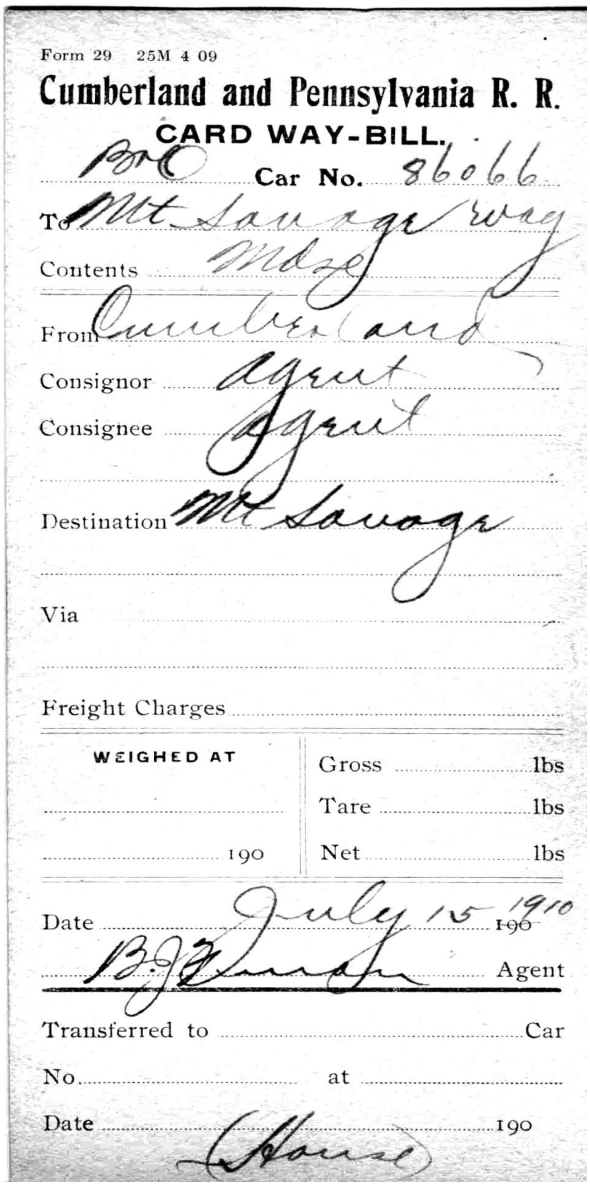
4. Freight

Coal, the commodity

Coal was mined in Allegany County in small quantities and for local use in the 18th century. By the 1820's, it was being hauled from the mines by wagon down the National Road; stockpiled in Cumberland; and shipped to Georgetown when the water level of the Potomac River permitted. It was cost-prohibitive to ship any quantity of freight out over the mountains via wagon.

The coal shipped from the Georges Creek Region was semi-bituminous, and generally all run-of-mine; i.e., it was not sorted as to size and type before loading. Transportation cost was set at 3 cents per ton-mile to Cumberland, the going rate on the B&O. By 1929, it was estimated that in excess of 152 million tons had been shipped.

Most of the predecessor mining companies had the name 'Iron' in their names. Both Lonaconing, in the Georges Creek region, and Mount Savage, had supplies of ore, and were involved in iron production. Only Eckhart never developed its iron deposits. However, by 1842 coal quickly became the cargo of choice for the railroads. The eastern industrial centers of Baltimore and Georgetown needed fuel for their furnaces. Later, coal and firebrick went west to



Form 29 25M 4 09

Cumberland and Pennsylvania R. R.

CARD WAY-BILL.

P & C Car No. 86066

To Mt Savage Md

Contents Mdse

From Cumberland

Consignor Agent

Consignee Agent

Destination Mt Savage

Via

Freight Charges

WEIGHED AT	Gross ..... lbs
	Tare ..... lbs
190	Net ..... lbs

Date July 15 1910

B. J. Hunsaker Agent

Transferred to ..... Car

No. ..... at .....

Date 190

House

Figure 191 – C&P Way Bill, collection of P. H. Stakem

Pittsburgh. Large cities such as Baltimore had depleted the easily accessible supplies of firewood for home heating and industry. Coal, once overlooked, was becoming the lifeblood of the cities, industry, and the railroads. The need for coal as a substitute for firewood, its value to industry as a fuel, and the ability to move enough of it from the mines to the users all developed together. In addition, the technology for using the hotter burning coal for home heating and industry was developed.

C&P Shippers, for other than coal

This section discusses the shipments that the C&P carried, besides coal. Numerous local industries were served with one or more carloads per week. The brickyards at Zihlman and Mount Savage accounted for the second-largest freight tonnage. Iron, lumber, limestone, cement, grain, and oil had been shipped as well. Manufactured goods such as specialized mining machinery were brought to the mines.

The C&P Car Records office, circa 1947, lists these available rolling stock. These types of cars would be found on the road, not necessarily owned by the C&P.

1. box car
2. gondola
3. flat car
4. coke hopper
5. refrigerator (reefer)
6. hopper car
7. stock car (animals)
8. ore car
9. container car
10. tank car

Some of the local Industries served:

1. Bennett Transfer & Storage
2. Independent Motor Fuel Company – petroleum products.
3. Orchard – fruit, peaches and apples.
4. Mount Savage & Big Savage Refractories – firebrick.
5. Willison Lumber, Frostburg - lumber, hardware.
6. Neilson Brothers Paint & Supply – hardware.
7. Jacob Click Feed and Flour, Lonaconing.
8. White Brothers Foundry, Franklin, iron.
9. Feldstein's Junk Yard – iron and steel scrap to Pittsburgh.
10. Saw Mill - Clarysville
11. Apples were shipped by boxcar from Charlestown (Southeast of Lonaconing), at the Sloan Farm. This facility had its own siding.
12. Tanbark was shipped to the Union Tanning Company in Cumberland, on the Potomac Wharf Branch, at the Valley Street Bridge.
13. The Union Glass Company in Cumberland, and the Glass Company in Lonaconing were serviced by the C&P. Incoming raw material included sand and coal.
14. The Klott's silk mill in Lonaconing was serviced by the C&P, for both incoming raw silk and outgoing silk thread.
15. Bowery Iron Furnace, Midlothian, Maryland - produced iron for the B&O rolling mill, in Cumberland.
16. Ort's Bakery – dry bulk flour. In addition, owner Louie Ort kept his private railcar on a C&P siding in LaVale.
17. Cumberland breweries – Queen City & Old German. Bottled beer was shipped from Cumberland; the C&P had a beer warehouse at the Frostburg depot.
18. Sears - the warehouse in LaVale had a siding.

The following page shows a circa-1938 map of the C&P route, and the industries served. This map was provided by the Western Maryland Chapter of the National Railway Historical Society.

5. The Shops at Mount Savage

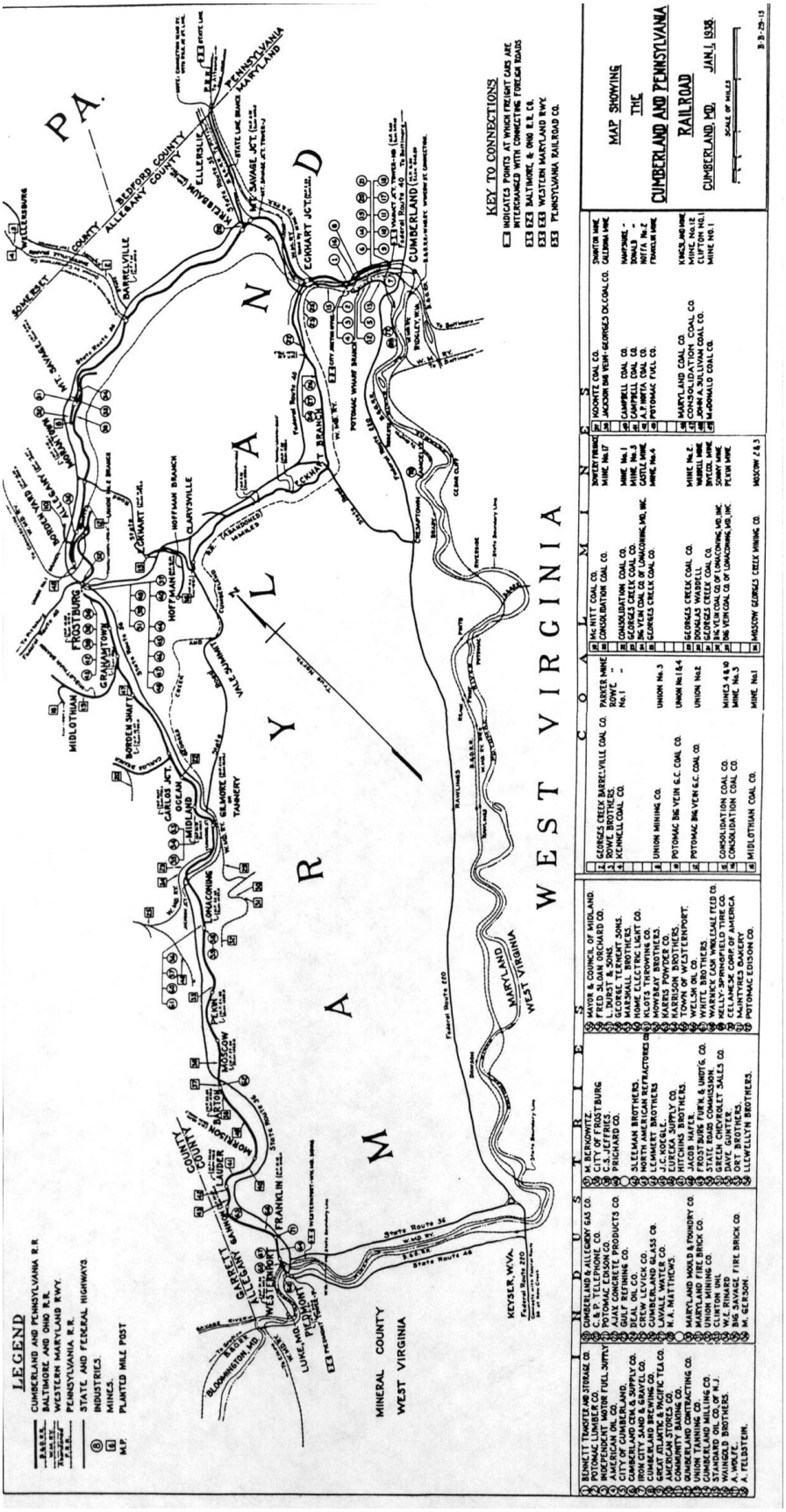


Figure 191 – C&P route and customers map, courtesy, Western Maryland Chapter, NRHS, Inc.

This chapter covers the production of industrial machinery at Mount Savage, from the earliest iron furnaces, rolling of the first iron rails, Milholland's shop, locomotive rebuilding, and the transition to locomotive production. It outlines the C&P's home shops. Even after the last locomotive was produced in 1917, the shops remained open to service engines and rolling stock. This section also discusses production of engines for other roads.

The Blast Furnaces

The blast furnace process of producing iron requires a ready source of iron ore, limestone, a fuel, and a blast. The preferred fuel is coke, nearly pure carbon, made from coal. The

preferred blast is heated air. The limestone serves as a flux, to collect the impurities from the ore. Iron ore was mined locally, and limestone came from nearby quarries, perhaps at Corrigansville. Coal was burned into coke onsite in long pits. This removed the sulfur and phosphorous, which interfered with the iron extraction process. The process of extracting iron from ore is less of a melting process than a chemical reduction process. The carbon from the coke binds with the oxygen from the iron oxides in the ore, and is driven off as carbon dioxide and carbon monoxide. Sometimes, the iron ore was also roasted before being introduced into the furnace. This served to remove contaminants present in the raw ore.

Iron ore was mined in various locations in the county, and went to the furnaces at Mount Savage. One mine that served the Mount Savage facility was on the Samuel Eckles property on the west side of Wills Mountain. This area was worked from 1845 to 1855, and re-opened during the Civil War. Iron ore was mined in the town of Mount Savage, on the north and west sides. The larger mines were on the hill called Ridgeley, and about 1 1/2 miles west of town, one the north side of Dutch Hollow. At the foot of the Mount Savage gravity plane, the "Lower Tunnel" was opened in 1846, and was worked until 1853. This tunnel was reported to be 1/2 mile long. The "Upper Tunnel" was located on the property of Henry Collins, and was also about 1/2 mile long. These excavations also yielded fire clay necessary for lining the furnaces.

Iron ore from George Jeffries & Sons of Frostburg went to Mount Savage. About 5,000 tons were provided at a cost of $4.50 to $5.00 per ton. The Jeffries paid a royalty of $.25 per ton to the Frosts, owners of the land. The ore bed was 18 inches thick, and was recovered by drift or strip mining. This mine closed about 1855. Jeffries then worked a mine during the Civil War on the Johnson property in Frostburg. This was a piece of land 2 acres in extent, with a vein of coal 4-feet thick. About 10,000 tons were extracted by 10 men, and numerous teams of horses. Joseph Johnson got a royalty of $.30 per ton.

Three furnaces were built at Mount Savage, but only two went into service. The two that did go into blast resembled the furnace at Lonaconing, fifty feet high, fifteen feet wide at the bosh, and built against the side of a hill. They were on the south side of Jennings Run. The third furnace, on the other side of the creek, was not built against a hill, and would have had to be loaded by derrick. The furnaces were lined with firebrick, produced locally. Firebricks became the basis of a business that has continued into recent times. The Lonaconing facility produced its last batch of pig iron in 1855. Early experiments with a coke-fueled furnace at Mount Savage in 1842 had produced acceptable iron at a cost of $16 per ton, when English iron was available for $15.84. A tariff bill, passed by Congress in 1846, removed protective duties on imported iron products. This benefited the English and Welsh manufacturers, at the expense of the fledgling American shops. This action was a direct cause of the failure of the Maryland & New York Iron & Coal Company, owner of the facility at Mount Savage.

In those years, the blast furnaces of Mount Savage blazed around the clock, consuming massive amounts of coked coal, iron ore, scrap iron, and limestone. According to surviving records, in June of 1856, 356.5 tons of iron were produced. This required 747 tons of iron ore (a 39 percent yield), 1.77 tons of coke per ton of iron produced, and 1.19 tons of limestone per ton. For this process, 536 tons of coal went to the blast engines. All of this raw material was dug by hand. The cost of production totaled $23.39 per ton, including anticipated repairs to the furnace, and wages. In 1844, Number 2 furnace was in blast for 40 weeks, and produced 4,500 tons of iron. In 1846, Number 1 furnace was in blast for 44 weeks, and produced over 4,500 tons. The integrated manufacturing center at Mount Savage, with its associated transportation infrastructure, represented the very cutting edge of the Industrial Revolution in America, and rivaled the best in the world. Economic issues, not technological ones, forced the shutting down of the blast furnaces in the late 1840's, but they were re-opened during the Civil War.

From 1840-1860, profits in the iron business ranged from 40-60 percent, sometimes reaching 100 percent (ref. 2). Maryland was seventh in the nation in iron production in 1860, rising to fifth by 1870. The production of iron in Maryland declined sharply after that. The Maryland ore was never that good, and the discovery of rich veins in the West put the smaller, local furnaces out of the iron business. Ruins of two of the furnaces are still visible in the town of Mount Savage, and the Lonaconing furnace has been preserved in a city park. The Mount Savage blast furnaces had their own railroad branch, extending 1.3 miles from the main line. Bits of this roadbed can still be found.

As mentioned in the section on the Lonaconing furnace, the furnace may have been too technologically advanced for its time. The politics of international trade skewed the equations in favor of imported rather than home-produced iron.

Cast iron, extracted from ore, is a product of limited use, only suitable for a limited number of products. The next step in production involves a rolling mill. The rolling mill at Mount Savage will be

discussed next.

The Rolling Mill, and the First Iron Rail

The iron furnaces produced cast iron; at best, an intermediate product. Early rails were cast, but these were prone to fracture. Pig iron is good for some things, but a better product was needed. This section examines the next step – a value-added process to turn pig iron into motive power. A forge and rolling mill had been planned for the facility at Lonaconing, but these were never built.

In 1842, the American Railroad Journal had said in an editorial that there was no firm in the United States capable of manufacturing heavy-edged rail. Many facilities had tried and failed to produce an acceptable product. The market for the product was apparent and the Mount Savage rolling mill was built in 1843 by the Maryland & New York Iron & Coal Company. The rolling mill site had 3 trains of rollers driven by steam engines, 17 puddling furnaces, 6 reheating furnaces, and 3 special facilities for sheet iron production. The furnaces were of the Siemens type, using coal gas produced onsite as fuel.

The Mount Savage open-hearth furnaces were not making true steel – just malleable iron. The difference among cast iron, wrought iron, and steel is a percentage point or so of carbon. The rival Bessemer process made steel in England by 1856. William and Frederick Siemens built their first experimental furnace in 1858, and got a patent in 1861. By 1868, they finally demonstrated the production of steel from pig iron.

The Siemens furnace was a rectangular, covered design that passed burning gas over the top of the charge of pig iron. The early models had a 4-5 ton capacity. The concept was to purify the pig iron by oxidation of the carbon, and to remove impurities.

The production of coal gas is a byproduct of any coke production, but in carefully designed reactors, a better grade of gas is produced. Typically, a producer reaction vessel is used, being constructed of cylindrical steel like a boiler, and lined with firebrick. It was partially filled with coal or coke. A blast of air, and sometimes steam, was introduced from the bottom. These reactors consume several tons of coal per hour.

A successful rolling mill had been placed in operation in England as early as 1783, and cold rolling began in Pittsburgh in 1860.

In addition to rolled product such as rail, the Mount Savage production facility could produce wrought iron sheet. Rolled into cylinders and riveted, this made the production of locomotive boilers possible. In addition, wrought iron was used in the production of chain, engine bolts, stay bolts, pipe, threaded parts, and drawbars. The first successful output of the Mount Savage mill was in 1844, and marked the end of the U. S. dependence on imported products.

The rail was used for the home road and sold to the B&O railroad, which up to that time had been totally dependent on imported British rail. One thousand tons of rail, at $59 per ton, went to a railroad at Fall River, Massachusetts. Most interestingly, the Mount Savage facility used its own product to build the Mount Savage Rail Road, down the Jennings Run and through the Narrows, to connect with the B&O at Cumberland.

In the 1850's, the Mount Savage facilities employed 900. Jobs at Mount Savage attracted both skilled and unskilled immigrants from Ireland, England, and Wales. In foundries and machine shops, wages were relatively stable from the early 1880's to the 1910's. A machinist or boilermaker would make about $2.50 per 10-hour day, 6 days a week, 300 days per year. There was no vacation, no sick leave, and no holidays except for Christmas day.

Puddling furnaces were making malleable iron out of pig iron in England by 1784. In these, the molten metal with a layer of floating slag is stirred for 5-10 minutes of *clearing*. This causes the oxidation of contaminates in the iron, mainly silicon, manganese, and phosphorous. The puddler's job was a particularly hot and dangerous one. He stirred the molten iron with a long rod, to bring the slag and impurities to the surface, where they could be skimmed off. Still, it was probably a better job than in the nearby mines. His skill was also critical. There was no way to accurately measure the temperature of the melt, except by its color. The ironmaster's experience and "calibrated eyeballs" were the key to success or failure of the process.

After clearing, the temperature in the furnace was raised. After another 10 minutes of stirring, carbon monoxide gas would begin to escape the melt as bubbles, which catch fire as they burst. This phenomenon was called *puddler's candles*. When they disappeared, more stirring was called for. This got increasingly difficult, as globules of decarburized iron formed. These 150-pound semiplastic balls were grasped by tongs and removed from the furnace. These were then hammered or squeezed by rollers. The resulting rough bars were cut into short pieces, and went into a reheating furnace. Here, they were taken to white heat – a self-welding temperature. They would be worked and reheated numerous times. Each reworking with a hammer or rollers removed more slag.

For the rolling operation, the worked iron was

again reheated, and passed through the rolls multiple times to get the correct shape. The Mount Savage rail of 1844 was a U-shaped design. Rolled rail would have a natural curvature as it cooled, and would be bent until straight. The rail would then be weighed for quality purposes, and stamped. Later, heat-treating of the working face would be used. Plate was also rolled in a similar process to rails. It would be sheared to size, and holes for rivets would be punched.

The design and construction of the rolls were critical. Templates were constructed first of wood, then of brass. Trial rolls would be made, and iron would pass through the process. These sections were then sawed and inspected. During the rolling and forming process, the progress of the iron would be carefully watched. The rolls would wear at different rates, requiring different replacement intervals.

Industrial safety was a concept that developed slowly and the iron shops of the 19th century were dangerous places to work. As part of the social contract men injured at work usually had guaranteed lifetime employment -- if they survived.

The emergence of the huge integrated steel conglomerates in the Pittsburgh Region and southwestern Pennsylvania put small, local operations like that at Mount Savage out of business. John E. Legge was the Superintendent of the Mill. The Mount Savage rolling mill closed in 1868 and was dismantled by 1875. It was cheaper to buy steel from Pittsburgh. No trace of the mill remains.

Where many hundreds of men labored in literally hellish conditions, a stranglehold on the rail industry by British industry was broken, and the tools for industrial expansion of the United States were produced.

Millholland's Locomotive Shops

The C&P locomotive shops were established in Mount Savage in 1866, under the direction of James Millholland.

The original locomotive shop was constructed of stone and was 90 feet x 250 feet in size with a roof 33 feet high. An adjoining car shop, built at about the same time, was also of stone and was later extended with a wooden structure. These buildings still stand in Mount Savage.

James Millholland, Senior was 54 years old when he and his family came to Mount Savage from Reading, Pennsylvania. Millholland was a master mechanic and an "advocate of plain engines and simplicity." He had extensive experience in keeping Winans camel engines running from his earlier work with the Baltimore & Susquehanna, and he was credited with many important locomotive innovations. He developed the first locomotive to burn anthracite coal successfully, and was Superintendent of Motive Power for the Baltimore & Susquehanna for many years. He is also credited with constructing the first iron deck girder bridge in the U.S. for the Baltimore & Susquehanna near Bolton in the period 1846-47. He was responsible for so many improvements to the basic Winans camel engine that the class was subsequently referred to as "Millholland camels". He is credited with designing a 12-wheeled camel engine, built in the Pennsylvania & Reading shops in 1863.

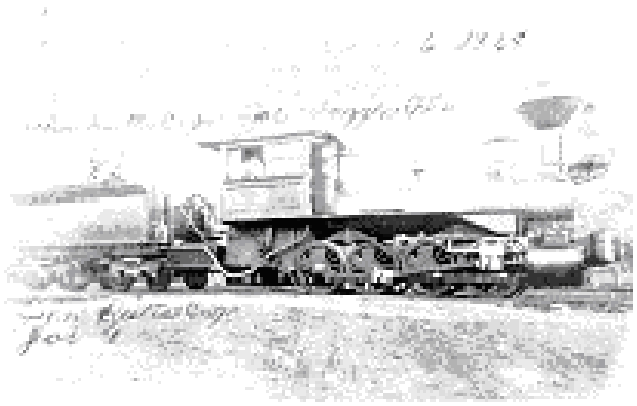


Figure 191 - The engine Highlander, converted from a Winans camel. J. G. Farrell collection.

He came to Allegany County in 1866 as the President of Consolidation Coal, and of the C&P. He resigned in 1869, and retired to his estate on the Valley Road, in Cumberland.

His son, James Junior, was 24 when the family moved to Mount Savage. He had been born in Reading in 1842, and had apprenticed in the railroad shops. He also joined the C&P, becoming Master Mechanic, and was vice-president by the time his father retired. He left the C&P in 1879 to join the Georges Creek & Cumberland Railroad. The younger Millholland was tasked with building the C&P shops in order to maintain their mixed fleet of motive power. He had the right experience for the job.

The younger Millholland bought good machine tools, which were still in use 40 years later as evidenced by the 1917 ICC valuation. He equipped the shops with metal working machinery from Bement & Dougherty, a predecessor of Wm. B. Bement & Son of Philadelphia.

Initially, the work supervised by Millholland at the Mount Savage Shops was limited to repairing and rebuilding the Winans camels and other early C&P locomotives. The shop force gained much hands-on experience during the first twenty years; at least 15 of the C&P's camel locomotives were rebuilt at Mount Savage (some twice). Typical of the rebuilds was the engine *Highlander*, a Winans camel inherited

Figure 191 - Mount Savage, collection of P. H. Stakem

from the Mount Savage Rail Road. It was a modernization project in which, among other things, the cab was relocated from on top of the boiler to the rear position. The firebox door was still at the rear, outside the cab. In a camel, the fireman worked from the tender.

The C&P shops also provided repair services to its rivals in the Georges Creek coal region. By the 1880's, the shops that Millholland had established were quite an extensive operation, able to offer custom built locomotives for sale in addition to meeting the requirements of the parent C&P. The period beginning in 1883 was an exciting one for heavy manufacturing in Mount Savage. A locomotive catalog listing five types of engines for sale and their specifications was issued for the Works by their agent, Thomas B. Inness & Co. of Broadway, New York. A copy of the catalog is presented in Appendix II of this book.

Initially, the Winans camels and other early locomotives were extensively rebuilt, and much experience was gained during the period from 1866-1888. The first recorded engine 'build' was a 0-10-0 unit in 1868. This could have been a modification to a Winans camel design. Engine production was active until 1917. Engines were produced for other roads as well. The production figures for 1882 list 19 passenger and freight engines outshopped, with 16 more in 1883.

All of the rotating power machinery was driven by leather belts from overhead master shafts. These, in turn, were powered by a stationery steam engine in the adjacent powerhouse. A similar facility may be seen today at the East Broad Top Railroad, in Pennsylvania.

One particularly good customer was T. H. Paul & Sons of Frostburg. A former C&P master mechanic himself (1854-1855), Paul established shops in Cumberland and Frostburg. He built mine engines and smaller narrow gauge locomotives at his shops, but contracted with Mount Savage for his larger orders. His Frostburg Works were located near the existing C&P Passenger Station, and some of the buildings still stand in 2002.

Evidence suggests that The Mount Savage Locomotive Works catalog was successful, and numerous sales to other roads resulted. This helped finance production for the home road; spurred development; and helped increase employment. Narrow gauge engines proved so popular a product that the works installed a third rail up the main line from Mount Savage for customer acceptance testing.

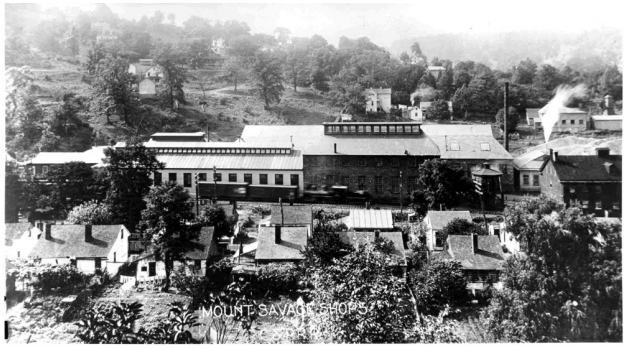


Figure 191 - Photo of Mount Savage shops, collection of P. H. Stakem

Locomotive manufacturing during this period was hard, heavy, dangerous work. It proceeded according to numerous 'rules of thumb' developed by the master mechanics over the years. Innovations were introduced slowly. There were continuous efforts to reduce costs, and increase performance. Weight reduction was not desirable, as weight-on-drivers contributed directly to tractive effort. Locomotive frames were usually riveted, built-up construction, of wrought iron and later, steel.

According to White (ref. 71), experience at the Norris Locomotive Works showed that a team of 14 men could build a locomotive in 15 days. This was assuming all the parts were on hand. A steam locomotive is a carefully integrated collection of a large number of specialty parts. The typical boiler was constructed of 5/16" wrought iron, starting as plate, and rolled to shape. The lap joints were single riveted. There is a big difference between watertight and steam tight. Later, double riveting, and reinforced butt joints were used.

Welding was not yet a developed technology, particularly for a pressure vessel. Boiler tubes were typically made of iron tubing of 2 inches diameter. They were lap-welded, and reportedly difficult to flange. The cylinders were usually cast in halves, assembled, and bored to size. This represented the most complex and expensive operation of the whole locomotive assembly. In 1856, it was common for the boring operation to consume 2 days. The pistons were cast iron, with fitted brass piston rings.

Boilers were covered, or lagged, to reduce heat loss, and increase efficiency. Wood slats were used originally. After 1900, asbestos was a favored lagging material. It was common for the slabs of the mineral to be machined to fit. This produced large clouds of asbestos dust that is now known to be a major carcinogen, a significant cause of lung cancer. The use of dust masks, hearing protection and safety glasses was unknown at the time. The boiler shops were a haze of asbestos dust.

Millholland favored Giffard's water injectors, based on his favorable experience with them on the Reading Line. He was also an early advocate of feedwater heaters, using them as early as 1855. His designs have them on the right side, under the engine running board. They are about 10 feet long, and 8" in diameter. These are a visible clue to engines produced in Mount Savage. Millholland is also responsible for the development of the poppet throttle, originally retrofitted on camel engines in Pennsylvania.

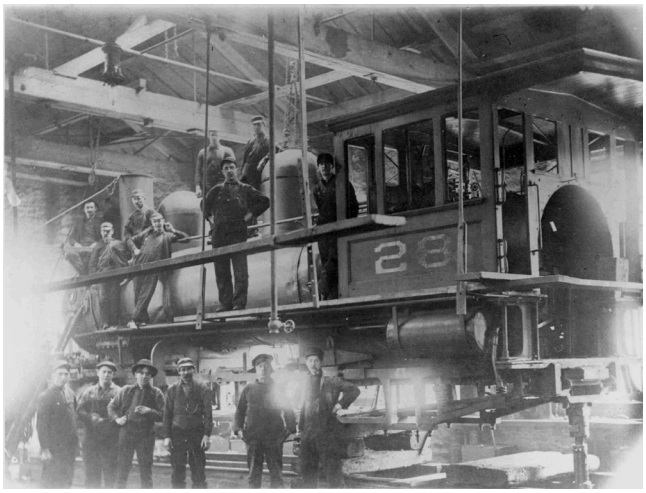


Figure 191 - Shops photo, collection of P. H. Stakem

The driving wheels were typically cast iron, and axles were usually 6" diameter wrought iron. Driving wheels were fitted with replaceable tires. On the basis of his previous experience, Millholland favored cast iron tires, shrunk onto the wheels. His father had experimented with steel tires around 1851-

Equipment from Bement & Dougherty, unless otherwise noted
1. Engine lathe, 28" x 8-foot bed
2. Horizontal boring and drilling machine, table size 24" x 44"
3. 18" x 48" engine lathe, C&P
4. 18" x 24" engine lathe, C&P
5. Vertical boring mill 54"
6. Car wheel boring mill, 48" table
7. 10" slotter
8. Wooden jib crane, 20' mast, 15' boom, 4.5-ton capacity, C&P
9. Punch & shear, 30" throat (used for rivet holes)

Car shop (The car shop would build the wooden parts of the engine, such as the cab.)
10. 18" rip saw
11. Lowell drill press
12. Tice shaper/molder blacksmith shop
13. Fulton 500 pound power forging hammer - (Bet you could hear this one in Zihlman!)

52, and they became standard later. Some early accidents on the C&P involved wheel failures. In 1872, Engine No. 11 broke a wheel below Frostburg, requiring the assistance of the work train, and delaying the pay car, according to the Frostburg Mining Journal. Delaying the pay car made everyone unhappy.
Connecting rods were cast, and bearings were brass and/or Babbitt metal. The early lubricants were all animal fat-based, and only suitable for low temperature applications. Later, petroleum-based lubricants provided much better performance.

Engine safety appliances were sparse. The Bourdon gauge for pressure readings was patented in 1849. A rival gauge was developed in 1857 by Wooten. Glass sight gauges for boiler water level were not popular until the 1890's. Part of the problem was production of the proper glass, and the sealing of the gauge. Headlights were originally oil lamps. These units were box-shaped, and had an 18-22" parabolic reflector. They could cast a 1000 foot beam, sufficient for low-speed operation in darkness. An important improvement was introduced with the advent of lamps powered by carbide. Similar to the lamps used by miners, these lamps used the reaction of water and the mineral calcium carbide to produce acetylene gas, which burned with a bright light. Later, electric lamps and generators were fitted. C&P tenders were also fitted with lamps on the rear, since the engines frequently operated in reverse on the various coal branches where they could not be turned.

Figure 191 -Pay car for the C&P and the mines, collection of the Western Maryland Railway Historical Society

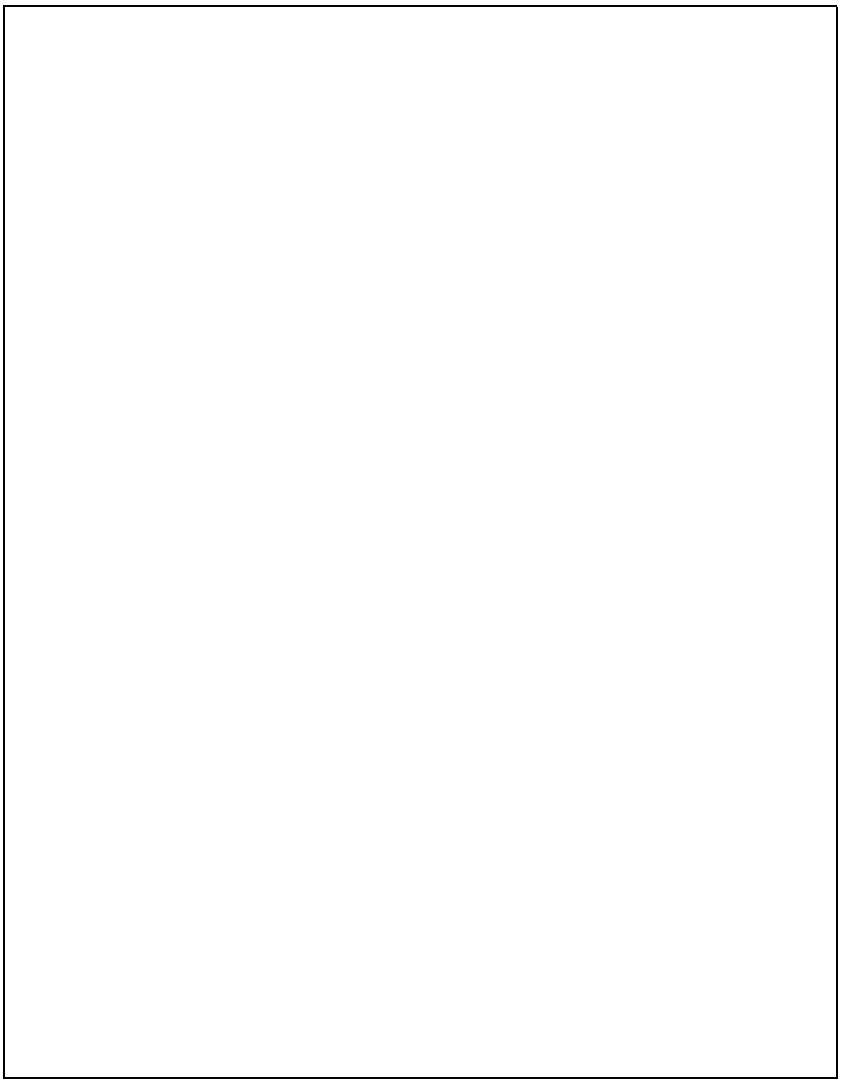
Engine Rebuildings at Mount Savage Shops

Millholland had extensive experience with rebuilding and upgrading the Winans design. The list presented is derived from Hicks (ref 23). It covers the major engine rebuilding for the home road, not routine maintenance or quick operational repairs.

Repairs and rebuilding continued into the 1940's. The shop equipment was available for charitable work as well. In 1937, the Mount Savage Fire Department built their own fire truck, with the help of the railroad shops (*Cumberland Times*, August 8, 1937).

Figure 191 – West Virginia Central & Pittsburg #3, built at Mt. Savage, at Big Run Arch on the Black Fork Grade, 1884. P. H. Stakem collection

Engine Construction at Mount Savage for the C&P



The following table shows 31 identified engine constructions at the Mount Savage Shops for the C&P. Engine 34 was not completed, and its boiler went to the Western Maryland Railway.

Engines built at Mount Savage for other roads

Narrow gauge equipment was built under contract to T. H. Paul, of Frostburg. Later, Mount Savage began to market its own narrow gauge equipment, built to the Paul pattern. It is probably safe to say that sales after 1883 resulted from the catalog.

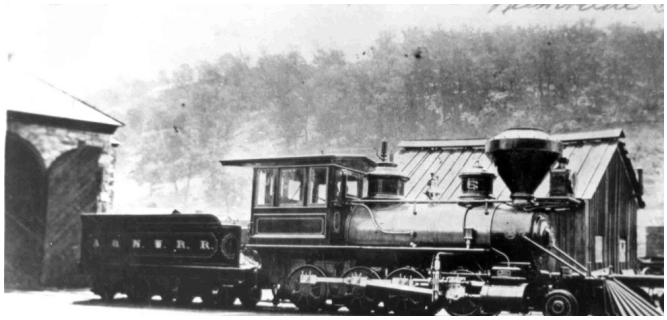


Figure 191 –A & NW #5 at Mount Savage – J. G. Farrell collection

The Mount Savage Works sent two engines to the National Exposition of Railroad Appliances in Chicago in May of 1883. Both were 3 foot gauge. The 4-4-0 unit had 12" x 20" cylinders, 48 inch wheels, and weighed 41,000 pounds. The 2-6-0 unit had 14" x 18" cylinders, 40 inch wheels, and weighed 49,000 pounds. The disposition of the engines after the show is unknown.

Although the catalog listed five basic engine types, customization of the design could be specified by the customer, for a price. The basic specifications of the various types are given below. The first four types are 3-foot narrow gauge, and the fifth is standard gauge. The diameter and stroke of the cylinders, in inches is given, as is the driver wheel diameter. The engine weight in pounds is also listed. It is uncertain what the total production was. The catalog types are:

An engine of type 2 went to the East & West Railroad of Alabama. An engine of type 4 went to the Austin & North Western Railroad of Texas. A type 5 engine became West Virginia Central & Pittsburg No. 3. A copy of the catalog is reproduced in the appendix.

The production total numbers vary in different sources. White (ref. 73) claims 12, Mellander claims 58. My list includes 24. Total production at Mount Savage is given as 100 units. Mellander claims 42 units went to C&P. The Rehor letter (ref. 47) lists nine engines built at Mount Savage for resale by Paul. With the loss of most of the C&P records at the time of the WM take-over, the actual production figures may never be known.

Engines built at Mount Savage for other roads

1. for T. H. Paul, under contract. All are 3-foot gauge.

a) Green Ridge Railroad, Allegany County, Maryland (2 units) Green Ridge Number 1 is featured in an illustration of the catalog, as the model for the 0-6-0 units. GRRR Number 2 *Flintstone* is an 0-4-0 unit.

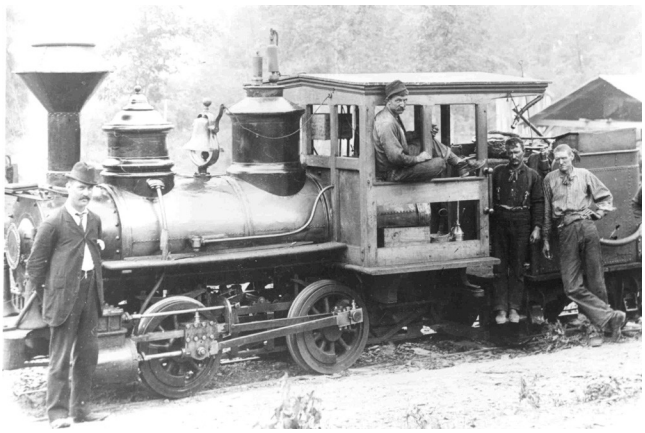


Figure 191 - Green Ridge RR engine Number 2, J. G. Farrell collection

The rail line was eight miles to the east of Cumberland, in the vicinity of Town Hill, and Fifteen Mile Creek. It belonged to the Mertens family, and supplied lumber to a sawmill at Oldtown, for use by the Merten's boatyards in Cumberland to construct canal boats. The railroad operated from 1889 to 1897. It interchanged with the B&O railroad near PawPaw, West Virginia, after crossing the Potomac on a trestle. Disposition of the engines is unknown, but they may have gone to the Keystone Coal & Iron Co. of Riddlesburg, Pennsylvania

b) Pacific Coast RR, Oregon Improvement Co. (3 units). These were built in 1881, and included a 4-4-0 model with 44" drivers and a tractive effort of 6,070 pounds, and two 2-6-0 units. The former was a passenger unit, while the other two were in freight service, with 7,000 lbs of tractive effort. J. Millard Fillmore, then President of the line, said these engines were, "…Nothing but a source of expense and very unreliable." They were replaced by Baldwins.

c) Toledo, Delphos & Burlington, a narrow gauge line in Ohio (3 units), no further information is known.

d) Pittsburgh & Western (2 units)

A 2-6-0 unit built in March 1882 as number 3 was not

delivered. It was sold in April 1884 to the Bright Hope Railway as their number 3. Disposition is unknown. Another 2-6-0 unit was built as road number 4 in April 1882, and was later sold in November 1887 to the Grafton & Greenbrier railroad as their No. 4. Disposition is unknown. The Pittsburgh & Western was absorbed into the B&O system in 1902. No Mount Savage engines were listed on the roster at that time.

2. Austin and North Western (A&NW) Railroad, Austin, Texas, No. 5, 2-8-0, 3-foot gauge, 15" x 18" cylinders, 28 tons, 36" drivers, built July 1883.

This engine was listed as Mount Savage serial No. 33 by the Southern Iron & Equipment (SI&E) Co. in 1918. It went to Tallahalla Lumber Co. It was also listed as SI&E No. 1264, before being sold to the Madrozo Sugar Company of Cuba as their No. 4 on 26 August 1918. It was reported out of service in 1948. Paul also supplied four type 4-4-0 engines to the A&NW. At least two of these may have been built at Mount Savage. The claim to fame of the A&NW is the hauling of 50,000 tons of granite for the state house in Austin, Texas.

3. Clarksburg, Weston & Midland Railroad
This engine was purchased new in 1883, and was a 4-4-0 of 36” gauge. The railroad was 3' gauge until 1886. It was a reorganization of the earlier Clarksburg, Weston & Glenville (8/79-4/89). The railroad later became part of the B&O. The engine transitioned to the Lancaster, Oxford & Southern, of Pennsylvania. The LO&S was a reorganization of the earlier Peach Bottom Railway. Engine No. 4 was scrapped in 1916, after a fire.

4. East & West Railroad of Alabama, 4-4-0 engine, *John Postell*. This line became the Atlanta & Birmingham. No further information is known.

5. West Virginia Central & Pittsburg
1 unit, 2-8-0 numbered 3, later assigned WM number 252 but was never applied. Cylinders 20" x 24", 50” drivers. Scrapped 1905. Unit was 95,500 pounds, used 140 psi steam, standard gauge. The Claus letter of 1939 (ref. 93) alludes to multiple engines for the West Virginia Central & Pittsburg (sic), which were narrow gauge. No further information on these is known. Picture, p. 33.

6. Allegany Central Railroad, circa 1881, Allegany County, (western) New York State
ACRR No. 3 was a 4-4-0 unit built in Mount Savage in 1882. It had 44 inch drivers, and 12 x 18 cylinders. It was 3-foot gauge. The catalog weight of this model is 38,000 pounds. The engine was named *S. C. Dorsey*. It was reported scrapped by 1901.

7. Silver City, Deming & Pacific (Territory of New Mexico).
This 3-foot gauge line was opened between Deming, New Mexico and Silver City in 1883, a distance of 47 miles. The line was purchased by the Sante Fe in Feb. 1884. It was operated for a short while in narrow gauge, then converted to standard gauge. Engine 3 was a Mount Savage product, 2-6-0, built in March 1883, with 40” drivers, and 14" x 18" cylinders. Catalog weight for this unit was 49,000 pounds. The disposition of the engine is unknown, but it did not transition to the Santa Fe.

8. Anniston & Atlantic, Alabama.
This circa 1883 road was started as narrow gauge, in the vicinity of Talladega, completed in 1886. The line was purchased by the L&N in 1889, after which the line was standard gauged. A 4-4-0 engine from Mount Savage was rostered, although it may have come from the Clifton RR, number 1. The disposition of the engine after removal from service is unknown. There is a picture of this unit in Richard E. Prince's book, *Louisville & Nashville Steam Locomotives*, p. 21.

9. St. Clairsville Railway, Ohio
This line had about 6.5 miles of 3-foot gauge track. It was operated by the B&O. The name was mentioned in the Claus letter (ref. 93), but no further information is known.

10. Kemble Coal & Iron
This line was also mentioned in the Claus letter (ref. 93), no further information known. There are also records of a 0-4-0 saddle tank engine *Aristotle* built as a mine locomotive by Mount Savage.

Most post-Civil War C&P engines were equipped with Stephenson valve gear. The gear was hard to work on, and didn’t have an economical cut-off, but the shop personnel were familiar with it. Two sets of Southern valve gear were ordered for locomotives that were not subsequently built. The valve motion planned for number 34 went to number 27 when it was shopped with worn eccentrics. It took a while for the men to get the unfamiliar valve motion adjusted properly, and the locomotive galloped initially. Number 33 got the other set of Southern valve gear. C&P engines with a Cyclone front end included No. 23 and No. 27. This was a device fitted to the

smokebox to induce a swirling action on the exhaust, to separate out the solid particles.

Engine Tenders

Steam engines need a tender to carry the coal and water. These were built at Mount Savage as well. The

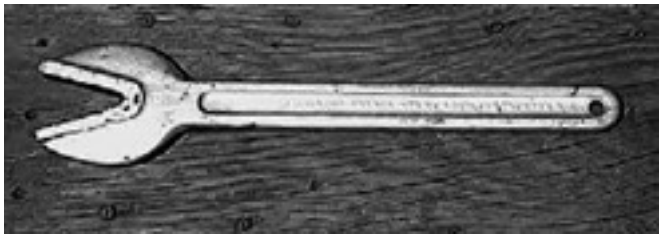


Figure 191 - Alligator wrench, collection of P. H. Stakem

early rule of thumb was that the ratio of water to coal consumption should be 7:1. Tenders were constructed from heavy gauge sheet iron, usually 1/8" plate on the sides, and 3/16" on the bottom. Due to rust, these units had approximately a 10-year working life, but were easily repaired. The horseshoe-shape water tank was the favored design. Wooden frames were used until about 1870, when iron frames were substituted. White (ref. 71) mentions that the C&P used inside bearing tender trucks. C&P tenders had a water capacity of 5-6000 gallons. Rumor has it that the C&P deliberately used small tenders to limit their range, because otherwise their engines were *borrowed* by the B&O to do the Brunswick run with loaded coal trains on the weekends. C&P engines left in Cumberland or Piedmont over the weekend were used by the B&O to reduce wear-and-tear on their own motive power fleet.

The Mount Savage Shops in the Twentieth Century

Figure 191 -Engine 30, showing representative Stephenson gear, collection of J. G. Farrell

Construction of locomotives ceased at Mount Savage around the time of the First World War. Heavy repair and rebuilding of locomotives continued until the time of the Second World War. The machine shops were used into the 1950's. New technologies were introduced, such as electrical lighting and electrical welding.

The Mount Savage Shops, constructed with 30-inch thick stone walls, had a floor space of about 22,000 square feet. Dirt floors were preferred for the forge, blacksmith shop, and for welding. Concrete pads were poured for the machine tools at a later date. Shop motive power was overhead lineshafts, and shop air. When a lot of machines came on line at the same time, or there was an excessive use of shop air, the

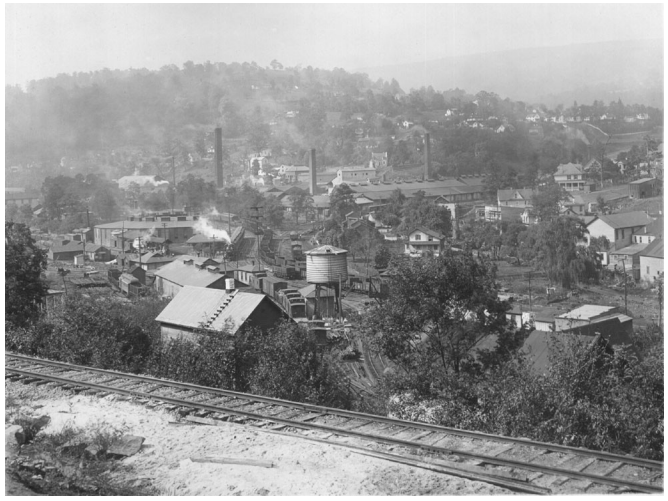


Figure 191 – Mt. Savage, circa 1910, P. H. collection

power shop foreman would come running. The power shop also generated electricity, and heated the building. Until World War II spurred the development of small, lightweight electrical handheld power tools for the aircraft industry, most industrial shops used airtools. The Mount Savage Shops did not have a large overhead crane capable of lifting and transferring a complete locomotive, so these operations were done manually. Before a locomotive was lifted, it was important to remember first to remove the whistle. It would be knocked off by a roof beam if it were not removed. This was confirmed several times. To un-wheel a locomotive, it would be jacked and blocked. Jacking was done with hydraulic (water) jacks. To move a locomotive in the shop, a series of pulleys, chains, and fixed floor anchors would be used with a transfer table arrangement. The shop engine served as the motive power. A re-wheeling would be done by a 3-4 man team in one 8 hour shift.

When a locomotive came into the shops for a

rebuild, the frame legs would be built up by electric welding (after that became prevalent) by a boilermaker. The frame would be squared manually, with grinding and wedges. It was important to align the axles to the frame accurately, and parallel to each other. Axles or journals rarely needed to be replaced. Before welding became popular, some parts needed to be discarded due to excessive wear. *Texas Jack*, a highly respected mechanic from the Texas & Pacific Railroad, was the expert at truing frames in the C&P shop.

Brake adjustments were made from underneath, in a cramped location. The proper open-end wrench was supposed to be used, but most chose an alligator wrench because it fit a range of sizes.

Cylinder heads used a special copper wire gasket that was hard to fit. Later, the master mechanic specified the use of an asbestos gasket, that was easier to fit, but blew out more frequently. It was highly favored by the shop crew, because of the overtime it generated for repairs.

If the operating crew were frugal with the valve oil, the rear rods of the eccentrics would sometimes bend. The engines would then limp in, and generate even more overtime for the shop crew.

Locomotive rebuilds and inspections were scheduled based on flue operating times. After a rebuild, the official operating time on the flues didn't start until a fire was built in the firebox. Thus, if the engine weren't scheduled to go back to work immediately, it would be moved to a storage location using air. The valve gear would be put in reverse, and the engine towed forward, to pump air into the boiler with the pistons. The process was repeated, until sufficient pressure was built up, and then the engine was shoved on the turntable and uncoupled. Aligned with the right stall, the engine could put itself into the stall with air pressure. This procedure was necessary because only one engine at a time would fit on the turntable.

In later years, Mr. Claus, the general manager, was a stickler for cleanliness and neatness in the shop. These concepts were not necessarily alien to a locomotive erecting, manufacturing, and repair shop. All tool boards had painted outlines for the various wrenches, there being a proper place for everything, and everything was expected to be in its proper place when not in use. There was a tag system for specialty tools checked out of the tool room. Standard bolts were stacked neatly with heads on alternate ends. An apprentice machinist was expected to make his own hand tools. The apprenticed trades at Mount Savage were machinist and boilermaker. From a solid grounding in mathematics and mechanical drawing at the high school level, apprentices would serve under experienced machinists to learn the details of their trade. Strangely, machinists were responsible for the superheaters, while boilermakers did the cowcatchers. Specialty parts such as springs or valves were typically purchased. Mount Savage Shops produced piece parts for the war efforts of World Wars I and II. Gun mounts were made for the war department in World War II. Between the wars, a half-day shift on Saturday was the norm, for cleaning and shop maintenance. Men with automobiles were allowed to use one of the car sheds to work on their personal vehicles in the afternoon.

For a rebuild, the locomotive's body-fit frame bolts would need to be removed. After the nut was loosened, the bolt would be soaked in penetrating oil, then smacked repeatedly with a sledge. If it didn't budge, then a special black powder cannon with a plunger would be used to blow the bolt out. It was considered a point of honor with the shop crew not to cut or drill the bolt.

Figure 191- C&P Monkey wrench collection of P. H. Stakem

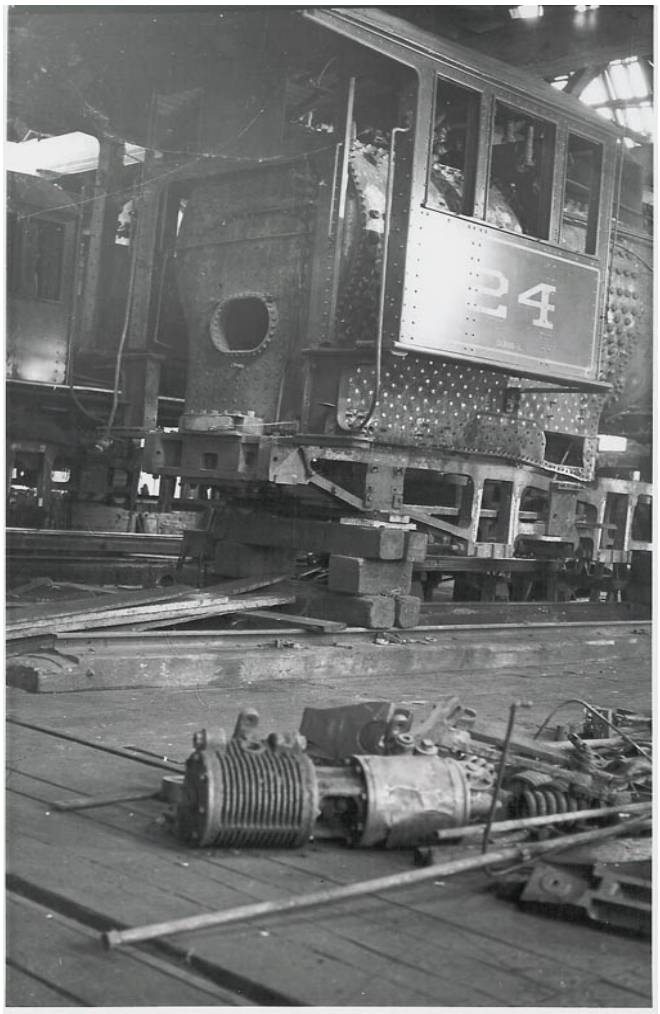


Figure 191- Locomotive 24 in for work. J. G. Farrell Collection

At Mount Savage, the boiler backheads were fashioned by teams of three boilermakers the old fashioned (i.e., the hard) way. Prepunched holes in a steel plate would be fitted over pins in a forming plate, and the assembly placed over a forge. Using mallets made from gum wood, the boilermakers would manually form the plate. They hit it in a rhythm, all in the same place. The firebox door would be formed last. While white-hot, the opening would be flanged. Boilermakers were always hard of hearing.

Some assemblies could not easily be done at the Mount Savage Shops. In this case, they would be jobbed out to larger shops. This was done, for example, for boiler rings, which were rolled in the larger capacity roller in the B&O shops in Cumberland in later years. Holes for rivets were always punched, not drilled.

The boilermakers were artisans of their trade. On the C&P engines, the smokebox saddles were not machined, as the shops did not have a machine large enough. The structure was laid out with a wooden form and chalk, and the boilermaker formed it by hand with an air chisel. All lap-jointed, welded seams were feathered. This was also done with a hand-held air chisel. The quality of the work depended on the skills and ability of the boilermaker.

In later years, the crossheads were reamed by a tool developed by the shop. It was a series of blades on a steel mandrel, with wooden spacers. Later, ultraprecision crossheads were purchased from Timken. These came in halves, and were clamped over the piston rods. Sellers-type injectors were used. The locomotive exterior piping was unique, and only fit one way. Although pre-bent in a pipe bender, it was not unknown for a boilermaker to use the spokes on the drive wheels to tweak a piece of pipe to fit into a particular location.

A snapshot of the C&P shops practice and work flow in the 1940's is provided by an existing shops blueprint. The shops stretched along Jennings Run, which provided a ready source of water for the power shop boilers, and for the fire pump. A rail siding ran along between the building and the creek, to a coal tipple at the powerhouse. The powerhouse had dual boilers of 150 horsepower capacity each. They fed the stationary steam engines powering the lineshaft, and provided heat to the shops in winter. The powerhouse was detached from the machine shops. There was a 3 1/16" diameter line shaft connecting the two buildings that ran in a tunnel.

The boiler shop was in a corner of the machine shop building, and hosted a forge, the flue head forming casting, the bending rolls, and two small cranes. A small electrician's workshop was set off with partitions. Next came the main shop floor, with

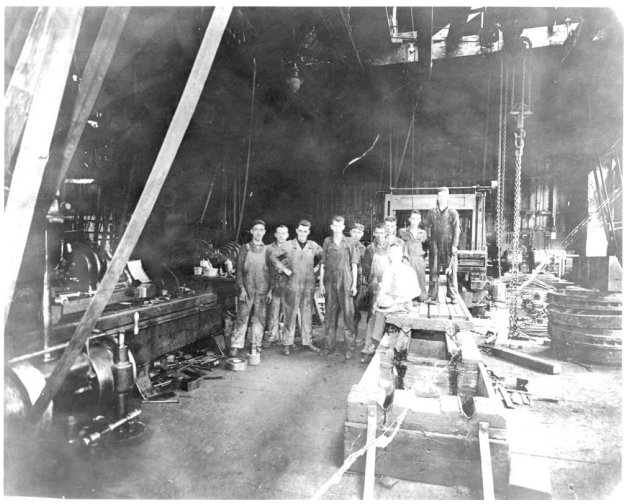


Figure 191 - The large planer in the Mt. Savage shops - notice how the bed has been extended. J. G. Farrell collection

two lathes, a boring machine, and a vertical milling

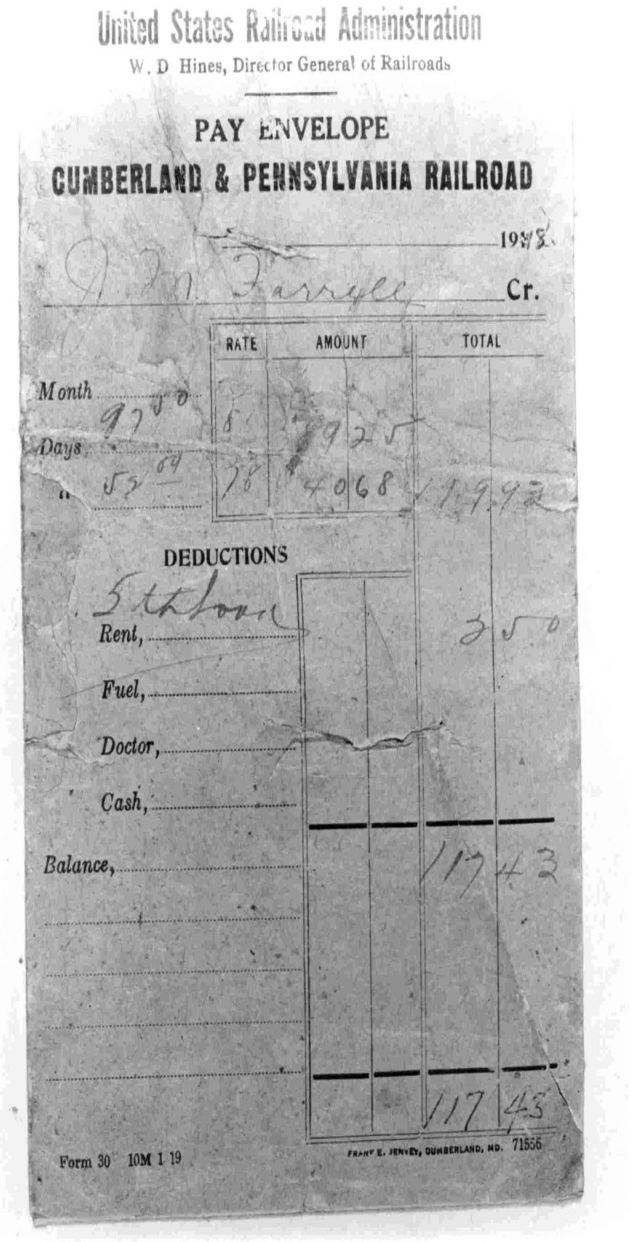
machine. Next to those were a turret lathe, a shaper, and a radial drill, with a large well for working on oversize pieces. There was a slotter and wheel boring machine, a driving wheel lathe, and another shaper. Next came the large planer, a milling machine, and a boring mill.

There were electrically driven shears in the flue shop, along with a 2-ton crane, a flue welder, a flue tester, a pneumatic hammer, and a flanger. The special grinder for the planer blades sat nearby. There were testing racks for the airbrake triple valves, the air pumps, and the engine valves. These parts could be disassembled and repaired on nearby workbenches. There were additional smaller lathes, milling machines, grinders, and saw sharpeners throughout the facility.

There were four locomotive repair sites inside the building, along with a track that ran down the center of the facility, close to the machine tools. The locomotives entered the building on repair track four. A transfer table, using three sets of track at right angles to the repair tracks, could move the locomotive to one of the other three sites, or to the track down the center of the building. The transfer cart had a 30-foot length of rail, and operated with 12 wheels, but was not powered. Repair track number 1, closest to Jennings Run, had a cleaning vat, and drained directly into the Jennings Run. The four repair sites had a thirty-eight foot length of rail, and pits to allow work under the locomotive.

In the middle of the shops was a chain block on an overhead channel, of 3 tons capacity, that extended to the adjacent car shop. Wooden patterns for cast parts were an important part of the operation, and the patterns were fashioned by master patternmakers. The wooden patterns for the castings were manufactured and stored in the adjacent car shops, which unfortunately burned in 1939.

When the C&P was bought out by the Western Maryland Railway and merged into its operations, all of the remaining C&P steam engines were scrapped. The Mount Savage facilities were shut down, and operations moved to the WM facility at Maryland Junction, West Virginia. However, the WM did keep the C&P machine shops open for a while, and, in fact, installed some new lathes there. New main rods for the class 800 H-9 Consolidations were fashioned in Mt. Savage. However, this was the swan song for Millholland's C&P shops.


United States Railroad Administration
W. D Hines, Director General of Railroads

PAY ENVELOPE
CUMBERLAND & PENNSYLVANIA RAILROAD

19

Cr.

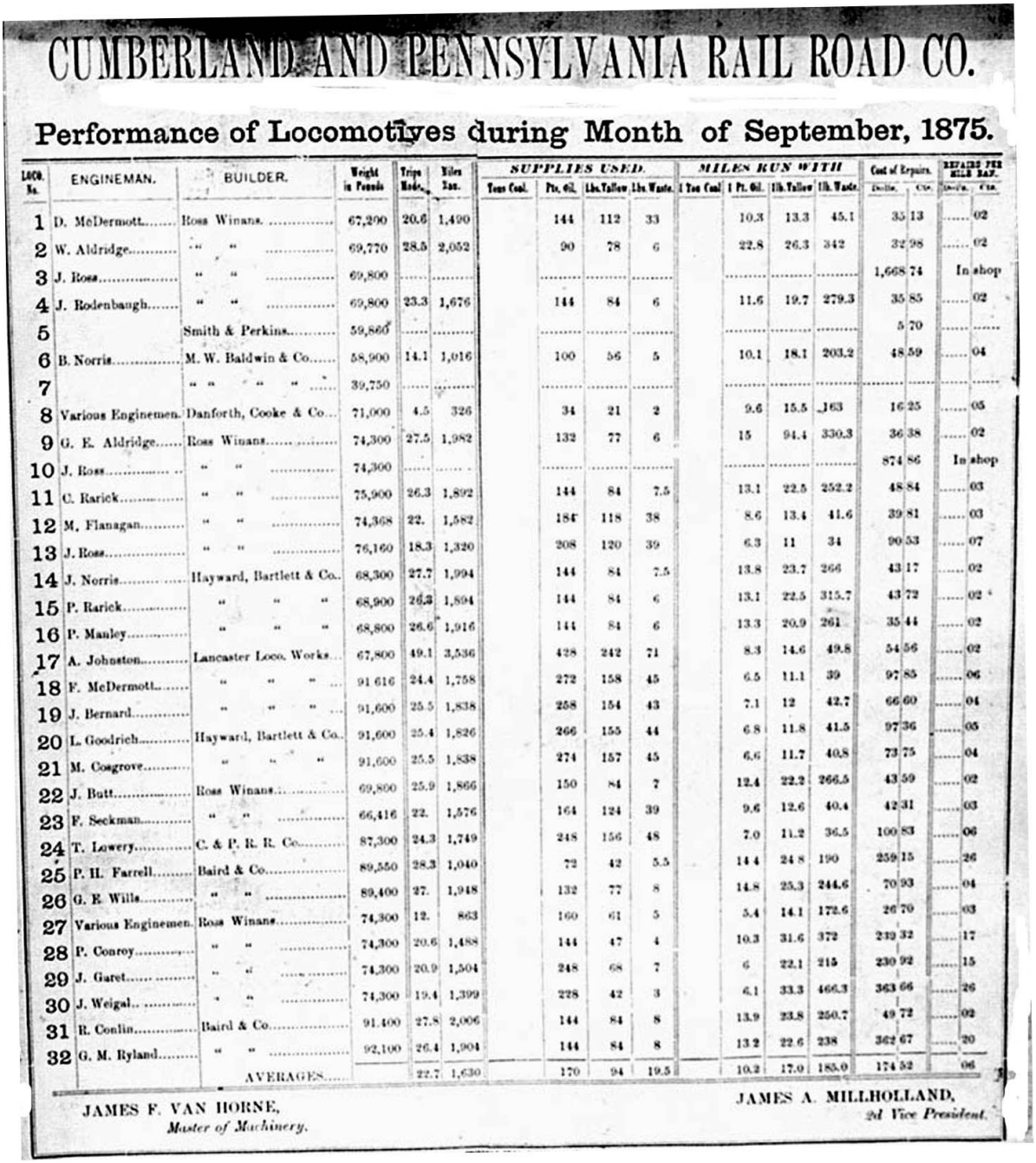
	RATE	AMOUNT	TOTAL
Month			
Days			

DEDUCTIONS

Rent,
Fuel,
Doctor,
Cash,
Balance,

Form 30 10M 1 19

Figure 191 – C&P pay envelope, collection of P.H. Stakem



CUMBERLAND AND PENNSYLVANIA RAIL ROAD CO.

Performance of Locomotives during Month of September, 1875.

Loco. No.	ENGINEMAN.	BUILDER.	Weight in Pounds	Trips Made.	Miles Ran.	SUPPLIES USED. Tons Coal.	Pt. Oil.	Lbs. Tallow	Lbs. Waste.	MILES RUN WITH 1 Ton Coal	1 Pt. Oil.	1 lb. Tallow	1 lb. Waste.	Cost of Repairs. Dollars.	Cts.	REPAIRS PER MILE RAN. Dollars.	Cts.
1	D. McDermott	Ross Winans	67,200	20.6	1,490		144	112	33		10.3	13.3	45.1	35	13		02
2	W. Aldridge	" "	69,770	28.5	2,052		90	78	6		22.8	26.3	342	32	98		02
3	J. Ross	" "	69,800											1,668	74	In shop	
4	J. Rodenbaugh	" "	69,800	23.3	1,676		144	84	6		11.6	19.7	279.3	35	85		02
5		Smith & Perkins	59,860											5	70		
6	B. Norris	M. W. Baldwin & Co.	58,900	14.1	1,016		100	56	5		10.1	18.1	203.2	48	59		04
7		" " " "	39,750														
8	Various Enginemen	Danforth, Cooke & Co.	71,000	4.5	326		34	21	2		9.6	15.5	163	16	25		05
9	G. E. Aldridge	Ross Winans	74,300	27.5	1,982		132	77	6		15	94.4	330.3	36	38		02
10	J. Ross	" "	74,300											874	86	In shop	
11	C. Rarick	" "	75,900	26.3	1,892		144	84	7.5		13.1	22.5	252.2	48	84		03
12	M. Flanagan	" "	74,368	22.	1,582		184	118	38		8.6	13.4	41.6	39	81		03
13	J. Ross	" "	76,160	18.3	1,320		208	120	39		6.3	11	34	90	53		07
14	J. Norris	Hayward, Bartlett & Co.	68,300	27.7	1,994		144	84	7.5		13.8	23.7	266	43	17		02
15	P. Rarick	" " "	68,900	26.3	1,894		144	84	6		13.1	22.5	315.7	43	72		02
16	P. Manley	" " "	68,800	26.6	1,916		144	84	6		13.3	20.9	261	35	44		02
17	A. Johnston	Lancaster Loco. Works	67,800	49.1	3,536		428	242	71		8.3	14.6	49.8	54	56		02
18	F. McDermott	" " "	91 616	24.4	1,758		272	158	45		6.5	11.1	39	97	85		06
19	J. Bernard	" " "	91,600	25.5	1,838		258	154	43		7.1	12	42.7	66	60		04
20	L. Goodrich	Hayward, Bartlett & Co.	91,600	25.4	1,826		266	155	44		6.8	11.8	41.5	97	36		05
21	M. Cosgrove	" " "	91,600	25.5	1,838		274	157	45		6.6	11.7	40.8	73	75		04
22	J. Butt	Ross Winans	69,800	25.9	1,866		150	84	7		12.4	22.2	266.5	43	59		02
23	F. Seckman	" "	66,416	22.	1,576		164	124	39		9.6	12.6	40.4	42	31		03
24	T. Lowery	C. & P. R. R. Co.	87,300	24.3	1,749		248	156	48		7.0	11.2	36.5	100	83		06
25	P. H. Farrell	Baird & Co.	89,550	28.3	1,040		72	42	5.5		14 4	24 8	190	259	15		26
26	G. E. Wills	" "	89,400	27.	1,948		132	77	8		14.8	25.3	244.6	70	93		04
27	Various Enginemen	Ross Winans	74,300	12.	863		160	61	5		5.4	14.1	172.6	26	70		03
28	P. Conroy	" "	74,300	20.6	1,488		144	47	4		10.3	31.6	372	239	32		17
29	J. Garet	" "	74,300	20.9	1,504		248	68	7		6	22.1	215	230	92		15
30	J. Weigal	" "	74,300	19.4	1,399		228	42	3		6.1	33.3	466.3	363	66		26
31	R. Conlin	Baird & Co.	91,400	27.8	2,006		144	84	8		13.9	23.8	250.7	49	72		02
32	G. M. Ryland	" "	92,100	26.4	1,904		144	84	8		13 2	22.6	238	362	67		20
		AVERAGES		22.7	1,630		170	94	19.5		10.2	17.0	185.0	174	52		06

JAMES F. VAN HORNE,
Master of Machinery.

JAMES A. MILLHOLLAND,
2d Vice President.

Figure 191 – Locomotive Usage Spreadsheet, collection of Westernport Heritage Society

6. Equipment and Physical Plant

This section discusses the rolling stock and physical infrastructure of the railroad. First, we will discuss the locomotives and the tenders. Then, we will look at the freight and the passenger cars. The next section covers maintenance of way equipment, and non-revenue cars such as cabooses and business cars. The ICC report valued the rolling stock and motive power of the line in 1922 in excess of two and one-half million dollars.

We want to look at the tunnels and bridges on the line, as well as the rail and interchanges. A section on signaling and control explores how the trains were operated and controlled. In the section on facilities, we will look at structures such as water tanks, tool sheds, company housing, turntables, etc.

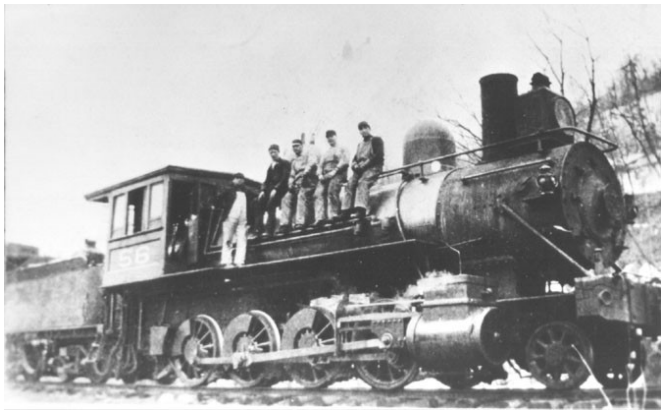


Figure 191 – Engine 56, collection of J. G. Farrell

Locomotives

The earliest C&P locomotives were inherited from other lines through acquisition. The motive power roster included a variety of models from Winans (15 units), Hayward & Bartlett (5 units); Baldwin (10 units); Smith & Perkins (1 unit); Danforth & Cooke (1 unit); and Norris, Lancaster (3 units). Most importantly, C&P built their own engines at their shops in Mount Savage. C&P engine road numbers ranged from 1-33, 37-39, and 51-62. As many as five locomotives shared the same road number at different times. We finally decided to distinguish these with lower case letters, in chronological order. Thus, we can refer to number 5a, 5b, etc.

Originally, C&P engines were named, not numbered. This followed the general railroad practice at the time. The named engines were assigned road numbers after 1851. The names were either geographical references, or persons. The persons who had engines named after them were men of importance to the railroad. They are discussed in a later section.

C&P Named Engines

Number	Name
1	Mount Savage
2	Highlander
3	Frostburg
4	John G. Lynn
5	A.H. Stump
6	Georges Creek
7	Lonaconing
8	Wm. Borden
9	Warren Delano
10	Enoch Pratt
11	C. E. Detmold
12	M. B. Branhall
13	A. C. Green
14	Allegany
15	Piedmont
16	Potomac
17	Maryland
18	Cumberland
19	Pennsylvania
20	New York
21	Baltimore
22	Eckhart
23	Mountaineer
24	Black Monster
25	Cumberland
26	Braddock

C&P Engines sold to other roads

Renumbering	disposition
14 -> 1 ->	“a steel Co. in Penna, 1905”
15 -> 2 ->	“a steel Co. in Penna, 1905”
28 -> 7 >	“a steel Co. in Penna, 1907“ (2-6-0)
17 -> 6 ->	Missouri Lumber & Mining Co., Nov. 1907

28 ->	Sandy Valley & Elkhorn, 9-28-1923
29 -> 8 ->	Sandy Valley & Elkhorn, 3-5-1924
31 -> 25 ->	Sandy Valley & Elkhorn, 11-9-1923
18 -> 3 ->	Millers Creek RR (Kentucky), No. 1, 1908
20 -> 4 ->	Millers Creek RR, 1913
59 -> 19 ->	Millers Creek RR
60 -> 20 ->	Millers Creek RR
27 -> 37 ->	Hocking Valley RR No. 280, 11-1917, C&O 1080
28 -> 38 ->	Hocking Valley RR No. 281, 11-1917, C&O 1081
29 -> 39 ->	Hocking Valley RR No. 282, C&O 1082, see C&P 19
32 ->	Winchester & Western No. 32
	(to Miller's Creek, then back as No. 32, per Farrell)

This section covers C&P rostered engines sold to other roads. Not all of the listed engines were Mount Savage products. Particularly, the 3 C&P units sold to the Hocking Valley Railroad were built by Baldwin.

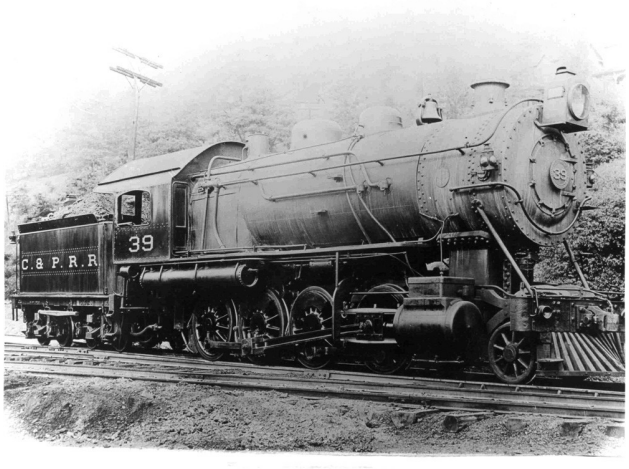


Figure 191 - C&P 39, a Baldwin, collection of J. G. Farrell

The following shows the disposition of the engines sold, and their road numbers. With the acquisition of the C&P by the Western Maryland, all remaining C&P motive power on the roster went to the WM, and was scrapped, usually at Maryland Junction in Ridgeley, West Virginia.

- 3 units to Hocking Valley, Ohio.

  These Baldwin engines were built in 1906 and 1907 for the C&P, and wore road numbers 27, 28, and 29. They were later renumbered to 37, 38, and 39 respectively. It is reported that the C&P sold these engines to the Walter A. Zelnicker Supply Co. in 1917. From there, they presumably went to the Hocking Valley as their numbers 280, 281, and 282.

  The C&O took over the Hocking Valley in 1925. These engines transferred to the C&O as units 1080, 1081, and 1082. The engines appear on the 1931 roster, but are gone by 1943. Final disposition is unknown.

- 4 units to Millers Creek Railroad, Van Lear, Kentucky. This line was controlled by the B&O (1918-22), then by the C&O. Disposition of the units is unknown.

- 1 unit to Missouri Lumber & Mining Company. No further information is known.

- 3 units to Sandy Valley & Elkhorn Railroad.

  This road went from Shelby Junction, Kentucky, where it had a connection with the C&O Railroad, to Consolidation Mine No. 208. The B&O financed the construction of the line in 1912, then sold it to Consolidation Coal in 1928. Other SV&E motive power came from the B&O. The C&P engines evidently went to the C&O railroad. The engines do not appear on a 1931 C&O roster. Disposition is unknown.

- 1 unit to Winchester & Western, Virginia.

C&P number 32 went to the Winchester & Western circa 1945. This engine, a 2-8-0, was built in Mount Savage in 1910. It maintained its road number. The

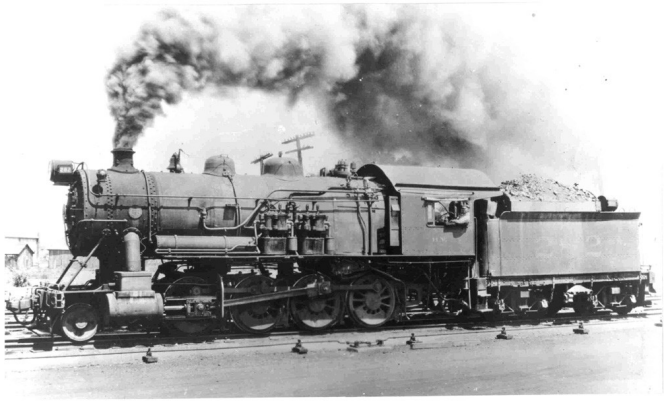


Figure 191 - Hocking Valley 282, ex-39, Harold Vollrath collection.

engine worked on that line until it was scrapped in 1953.

- 3 units to ‘a steel Co. in Penna.', 1905, 1907. No further information about what steel company, or the ultimate disposition of these engines is known.

Figure 191 - Engine 60 on the C&P, collection of J. G. Farrell

Figure 191 - Winchester & Western number 32, Gore, Virginia, April 16, 1952, William P. Price photo.

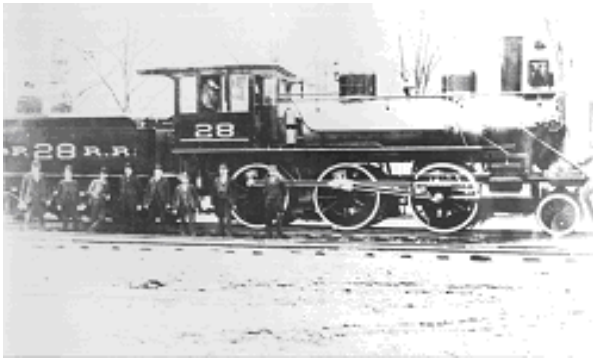


Figure 191 - Engine 28, a 2-6-0, was renumbered 7. Picture taken in 1890, collection of J. G. Farrell

Figure 191 – Mount Savage Shop, P. H. Stakem collection

C&P Engines Built by Ross Winans, Baltimore

Ross Winans (1796-1877) came from a New Jersey family of horse breeders, but successfully made the transition to other forms of motive power. In 1841, he opened his own shop adjacent to the B&O's Mount Clare facility, with that railroad as his primary customer. He was a pioneer in the development of coal-burning locomotives. He was eccentric, and his locomotive business made him independently wealthy. His customer relations were simple -- he built engines his way, and you bought them. Bored with the business, and having a design disagreement with the B&O, he closed his shops, which were later leased to Hayward & Bartlett. He went on to do significant work for the Czar's railroad from St. Petersburg to Moscow in Russia. Engine sales to the C&P were recorded in 1863. James Millholland, the C&P Master Mechanic, was familiar with keeping these camel engines running, and making improvements to them.

Winans set trends in locomotive and car design rather than followed them. His crabs, muddiggers, and camels were used all over the fledging rail network of the eastern United States, from the 1840's until after the turn of the century. The B&O was Winans' largest locomotive customer, with one hundred and forty locomotive deliveries going to that road. Winans had a disagreement with Hayes of the B&O, which delayed delivery of some engines into 1863. Winans' second best customer was the Philadelphia & Reading. These two customers represented 70 percent of his sales. Winans typically offered a thirty-day trial period at the customer site.

About two hundred and sixty-seven engine deliveries to twenty-six American railroads by Winans can be documented during the period 1843-1863. The Winans engine designs impressed a Russian delegation, and he was asked by the Czar to build the Imperial railroad from Moscow to St. Petersburg. Winans sent his two sons, as well as engineer George W. Whistler, to Russia for several years for that project. Winans may have sold as much or more equipment in Russia as he did in the United States. Winans' son returned to build a Russian style estate in Baltimore, named *Alexandrofsky*. The contents of the estate were sold at auction in 1925, and the grounds are now Leakin Park in Baltimore. Luckily, twenty-three boxes of Winans papers and journals were donated to the Maryland Historical Society in Baltimore for safekeeping.

Winans was a man of wide ranging interests, and his writings include political and religious tracts, extensive notes on his shipbuilding ventures, and on his work as a water commissioner for the city of

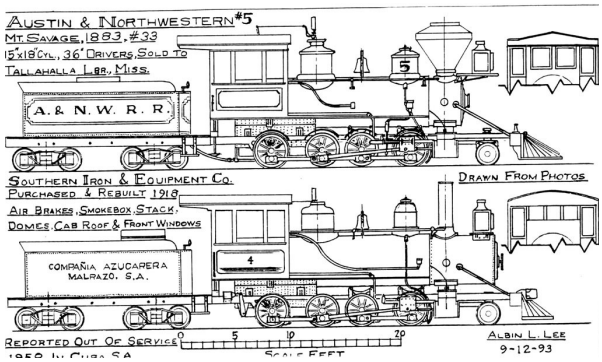


Figure 191 - Drawing of Austin & Northwestern #5 by Mr. Albin Lee of Texas. The lower view shows the engine after a rebuild.

The Austin & North Western Railroad was a narrow gauge line that wandered north and west from Austin, Texas. Our interest in this Texas narrow gauge shortline is that they had 5 engines, all from Allegany County, Maryland. All five came through T.H. Paul, of Frostburg. He evidently built the first four at his shops, and had Mt. Savage build the fifth one. The engine had 3 foot gauge, 15" x 18" cylinders, and weighted 28 tons, number four in the catalog. It was a 2-8-0 wheel configuration, the hallmark of the Mt. Savage shops.

I have a picture of that engine, outside the shops at Mt. Savage. That picture bothered me for quite a while. I knew the engine was narrow gauge, and that the tracks outside the plant were standard gauge. I couldn't figure out why the engine didn't fall over. Turns out, the narrow gauge business was doing so well, they put in a third rail, for customer acceptance testing before delivery. Narrow gauge from Mt. Savage to Borden!

The most important job of the Austin & North Western was to haul 50,000 tons of pink granite from the quarries to build the new Texas state house at Austin. Doubtless, Number 5, the big engine, did the bulk of the work. The line was standard-gauged in 1891. The narrow-gauge equipment was sold off to other companies, or

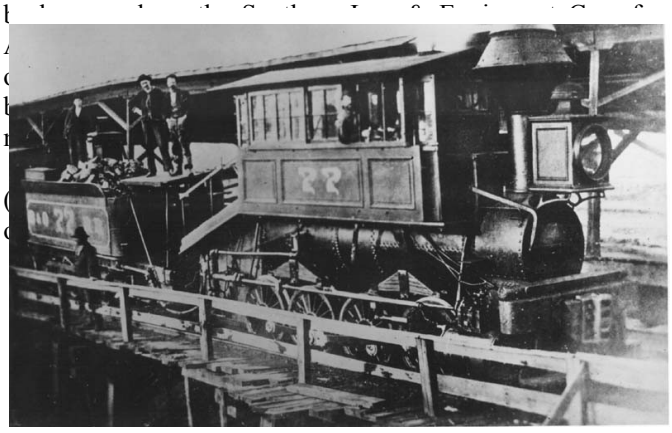


Figure 191 - Winans camel in B&O service in Cumberland, H. Vollrath collection

Baltimore. He was an ardent supporter of the Confederate cause during the Civil War, and served in the Maryland House of Delegates. He was removed from a train by Federal troops as he was returning from a meeting in Frederick, and was interned briefly at Fort McHenry. Rumors abound of a steam cannon built by him, and intercepted by Federal troops at Relay, Maryland, when it was en route south**.**

Several of the early railroads in Allegany County, Maryland, purchased Winans equipment. Most of these engines went to the Cumberland & Pennsylvania Railroad upon its acquisition of these shortlines by 1870. Sixteen of these engines were rebuilt and maintained by the Mount Savage Locomotive Shops, under the direction of Millholland.

Three sales of camels were made to the Cumberland Coal & Iron Company. The engine delivered in September of 1852 is the same design as B&O units numbers 106 and 108. B&O engines 161, 162, and 163 are known to have seen service on the Cumberland Coal & Iron's branch, and to have the same specifications. Three engines went to the Maryland Mining Company (MMC). Two of the engines transitioned to the Cumberland Coal & Iron when it purchased the property of the MMC in 1852. In addition, the B&O had at least eight Winans engines assigned to work on the Eckhart Branch Rail Road of the Maryland Mining Company near Cumberland. One sale from Winans is recorded to the Mount Savage Rail Road. The line was taken over by the C & P Railroad in 1854, and the engine became C&P No. 1.

The majority of the Winans engines were *burden* (freight) as opposed to passenger type. Engines delivered after June of 1848 are almost all of the camel 0-8-0 type, favored by Winans. The early models are sometimes referred to as the *Baltimore* engines. The camel name derives from the first of class of that name, delivered to the B&O in 1848. All camel engines were of the 0-8-0 wheel arrangement. Winans did not believe in the use of leading (pony) trucks.

The camel engines were all low-speed, heavy haul units. The speed was limited to 10-15 miles per hour by the steam capacity of the boiler, and the lack of a pilot truck. However, at that speed, a single camel could haul a 110 car train of loaded coal hoppers on the level. The most distinctive feature of the camel was the cab atop the boiler. They had a large steam dome, slide valves, and used staybolts in the boiler. More than 100 iron tubes, each over 14 feet long, were installed in the boiler.

A camel was about 25 feet long, with an 11-foot wheel base. There were three major variations: the short, medium, and long furnace models. The small units had 17" x 22" cylinders, and the others had 19" x 22" cylinders. The medium unit had about 23 square feet of grate area, expanded to more than 28 square feet in the large furnace model. The long furnace model had a firebox more than 8 feet long, requiring lever-operated chutes for the fireman to feed the front of the fire. The fireman worked in the tender, as the firebox was behind the drivers. This design required that the drawbar passed beneath the firebox, and it was typically heated to a cherry red color. Even after rebuilds with a more conventional cab design, the fireman continued to work in the tender. The standard camel engine had 43" wheels, and was painted green.

Camel tenders were 8-wheeled, generally with brakes on the rear truck only. They held 5 tons of coal, and 8 1/2 tons (more than 2000 gallons) of water. Fully loaded, the tenders weighted 23 tons, only 4 tons less than the locomotive.

Ten camels were delivered to the Baltimore & Susquehanna, including one "engine sold them from Maryland Mining Co., $8000 cash." Ten sales are recorded to the Northern Central, in addition to the engines they acquired from the Baltimore & Susquehanna. Two units went to the Elmira & Canandaigua in New York, and were subsequently sold to the Cumberland & Pennsylvania. The P&R engine *Susquehanna* is described in detail in White's book (ref. 71). Two Winans engines went to the Huntingdon & Broad Top Mountain (H&BTM) Railroad in southwestern Pennsylvania in 1863. One unit blew up in 1868, with the loss of four lives. The H&BTM ran along the west side of Broad Top Mountain, best known for the narrow gauge line on its east side, the East Broad Top Railroad. The C&P interchanged with the H&BTM at State Line, Pennsylvania.

Most of the Winans camel engines sold for around $10,000. Engine sales were expedited by syndicates of what we would now call investment bankers, such as Enoch Pratt. Banks did not yet have the accumulated capital to make loans for commercial purposes.

The records of the Philadelphia & Reading contain detailed information on camel engine mileages and rebuildings. In 1858, the P&R had racked up in excess of 3.5 million miles on its roster of 44 engines, with the camel fleet representing 20 percent of the P&R motive power. By 1865, 28 of 48 locomotives in the fleet had not yet been rebuilt. By 1870, only 4 of the 48 were not yet rebuilt, but these four had accumulated almost one million miles of road service. The average service life before a rebuild was about thirteen and one-half years. Similar data for the B&O gives an average service life of eight and one-half years before rebuilding. A total of 15 camel

rebuilds were recorded at the C&P shops in Mount Savage, from 1866 through 1875.

There are only three documented catastrophic failures in camel engines. Non-catastrophic failures were more prevalent, but fewer were documented. Roberts (reference 48) gives the performance of a Winans camel on the B&O's benchmark 17 mile grade, circa 1855, as 144 trailing tons. Dilts (reference 17) gives the performance of B&O engine 71 as 117 trailing tons up a 2.2 percent grade at 18 mph. Engine 71 was a Winans camel, built in April of 1851. The Winans engine could haul 40 empty coal hoppers up the Eckhart Branch, based on a tare weight of 3 tons for the Winans designed 6-wheel hoppers in use in 1854.

Figure 191 - Baldwin engine 39, William P. Price collection.

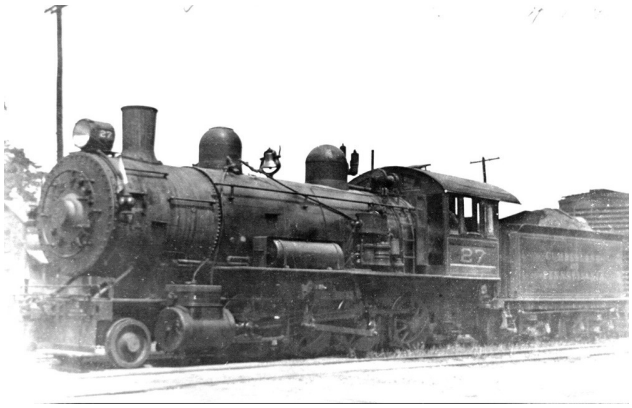


Figure 191 - Baldwin engine 27, William P. Price collection

The Northern Central acquired their engines second hand from the original purchaser, the Elmira & Canandaigua Railroad of New York, in 1867. They were numbered E&C No. 1 & 2. A sister engine, No. 3, went from the E&C to the Northern Central Railroad to the Baltimore & Potomac line, according to the Northern Central rosters.

C&P Engines built by Baldwin, Philadelphia

Mathias Baldwin of Philadelphia started out as a jeweler, and turned machinery maker. The locomotive works he established was in operation from 1831 well into the middle of the 20th century. The first locomotive was produced in November of 1832. His enterprise featured sound engineering with good management. Total production of the Baldwin works exceeded seventy thousand units. However, it never successfully made the transition to diesels.

The Baldwin firm's history basically spanned the entire era of steam locomotive manufacturing in the United States. It became one of the largest manufacturing enterprises in the nation. In 1861, the 1000th engine rolled out of the shops. When Mathias died in 1866, the firm was taken over by a senior partner, and renamed M. Baird & Co. The C&P Baldwin units were built at the old Broad Street factory in Philadelphia. The locomotive *Georges*

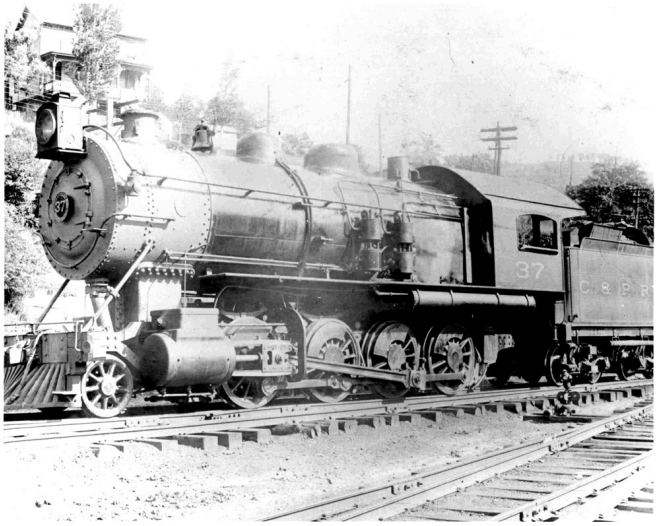


Figure 191 - Baldwin-built number 37, note second air pump. William P. Price collection.

Creek was serviced at the Hayward & Bartlett facility in Baltimore in May of 1866. The Mount Savage shops were not ready at that time.

Although the C&P purchased a few of the Baldwin consolidation units, they seem to have favored their own product from their own Mount

No.	road	type	Name	Blt.	Notes
1.	1	0-8-0	*Allegany*	1865	was number 14
2.	2	0-8-0	*Piedmont*	1865	was number 15
3.	16	0-8-0	*Potomac*	1865, July 24	
4.	20	0-8-0	*New York*	1866, October 9	
5.	21	0-8-0	*Baltimore*	1866, August 25	

Savage shops. The differences between these designs are obvious in a side by side comparison. The Mount Savage products had a much larger boiler. Three of the Baldwin units represented the heaviest motive power on the C&P, and were barred from certain branches because of their weight. They were sold in 1917.

C&P Engines built by Hayward & Bartlett

Hayward and Bartlett leased Winans' shops at Mount Clare in Baltimore in 1863, and opened the Baltimore Locomotive Works. Several Winans camel engines were in the shops at the time, and conveyed with the property. Civil War production demands helped to establish and fuel their business. H&B were originally stove manufacturers. They produced twenty-five locomotives by 1867, then concentrated on other areas. They did repair and rebuild work for the C&P and other roads. The firm survived into the 1980's as a specialty metal fabricator (ref 31).

C&P Engine built by Smith & Perkins

Smith & Perkins was located in Alexandria, Virginia, in 1837. The driving force of the business was Thatcher Perkins, ex-Master Mechanic of the B&O. Sometimes doing business as the Virginia Locomotive and Car Works, the firm found a good customer in the Pennsylvania Railroad, which bought fifteen units. The company hit hard times in 1855, and stopped production in 1858. The shop and tools were sold at auction in 1860. A lone S&P engine came to the C&P with its acquisition of the Georges Creek Rail Road. The passenger engine was scrapped in 1875. No pictures could be located.

Smith & Perkins Engine on the Cumberland & Pennsylvania

No.	road	type	Name	Blt.
1	5	2-6-0	*A.H. Stump*	1852-1853

C&P Engine built by Danforth & Cooke

The firm of Danforth & Cooke was located in Patterson, New Jersey. The man behind this enterprise was Charles Danforth, a textile machinery manufacturer of the 1820's, who turned to locomotive production in 1852. The company eventually was bought by Alco, and production continued until 1926. The C&P had one D&C locomotive.

Figure 191 – Hayward-Bartlett Engine *Potomac* - Deane Mellander collection.

Danforth & Cooke Engine on the Cumberland & Pennsylvania

No.	type	Name	Blt.
8	4-6-0	*Wm. Borden*	April 23, 1858

The D&C engine was originally built for the Marietta & Cincinnati RR, but never delivered. It was previously reported as purchased second hand by the C&P, but this is probably not the case. Specifications of the unit were: cylinders 18" x 24", 48" drivers, 62,600 pounds total weight. (ref: Danforth, Cooke & Co. Roster, L&RHS). It was reported as being serviced at the Hayward & Bartlett facility in Baltimore for the C&P on May 29, 1866. No pictures of the unit were located.

C&P Engines built by Norris, Lancaster, Pennsylvania

Several Norris brothers were active in locomotive production. The Lancaster works is associated with Edward and James; the rival Philadelphia works was run by Robert. Numerous units went to the Philadelphia & Reading. Lancaster 0-8-0 locomotives were generally built on the Winans pattern. They were referred to as 'Millholland' type camel engines. Production spanned the period 1853 through 1870, with the Norris brothers in charge from 1863 to 1868. During this time, three units went to the C&P.`

The 4-4-0 had 54" drivers, and 17" x 24" cylinders, and would have been a passenger engine. No pictures of the 0-8-0 engines surfaced.

C&P Engines from other Roads

This section discusses the engines acquired by the C&P, either by direct purchase, or as the result of

Figure 191 - Engine 17, a 4-4-0, J. G. Farrell Collection.

acquisitions of other roads. The first table shows the three engines purchased second hand from other roads. The second table shows the Eckhart Branch motive power coming to the C&P with its purchase of that line. These engines were acquired as part of the purchase of the Cumberland Coal & Iron Company's assets by Consolidation Coal Co. in 1870. Included in the sale was the Eckhart Branch Rail Road. The third table shows the locomotives belonging to the Mount Savage Rail Road that became the nucleus of the C&P fleet. The fourth table shows the locomotives of the Georges Creek Rail Road from the Georges Creek Coal & Iron Company in 1863.

17	4-4-0	*Maryland*	1865
18	0-8-0	*Cumberland*	1865
19	0-8-0	*Pennsylvania*	1865

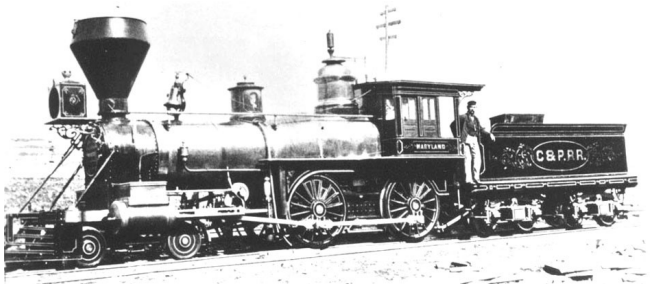


Figure 191 – C&P locomotive *Maryland*, Western Maryland Railway Historical Society Collection

Railroads.

BALTIMORE AND OHIO RAILROAD PITTSBURG DIVISION.

On and after Sunday, Jan. 2, 1887, passenger trains on this division will arrive and depart as follows:

Leave.	Westbound Trains.	Arrive.
1 20 a m	No 7 Pittsburgh Express	
8 09 a m	No 3 Uniontown and Cumb'd Acc	
2 10 p m	No 5 Through Mail	

Leave.	Eastbound Trains.	Arrive
	No 8 Baltimore Express	2 45 a m
	No 4 Yough and Cumb'd Express	7 10 p m
	No 6 Express and Mail	2 05 p m

W. F. LANDERS, Agent.

CUMBERLAND AND PENNSYLVANIA RAILROAD.

SCHEDULE.

Leave.		Stations.	Arrive.	
6.30 a m	11.40 a m	Piedmon	11.10 a m	5.32 p m
6.45 a m	11.55 a m	Barton	10.50 a m	5.17 p m
6.55 a m	12.10 p m	Lonaconing	10.42 a m	5.07 p m
7.10 a m	12.25 p m	Ocean	10.26 a m	4.52 p m
7.20 a m	12.42 p m	Frostburg	10.12 a m	4.35 p m
7.55 a m	1.07 p m	Mt. Savage	9.46 a m	4.09 p m
8.01 a m	1.12 p m	Barrelville	9.40 a m	4.01 p m
8.11 a m	1.20 p m	C and P. Junction	9.30 a m	3.50 p m
8.20 a m	1.35 p m	Cumberland	9.15 a m	3.35 p m
Arrive.			Leave	

All trains on the schedule stop at Hay Street Station.

P. L. BARWELL, General Superintendent.

PENNSYLVANIA RAILROAD. BEDFORD DIVISION

On and after Nov 15, 1886, Passenger Trains will arrive and depart as follows:

Leave.		Stations.	Arrive.	
Mail.	Express.		Express.	Mail.
8.20 a. m.	1 15 p. m.	Cumberland	12.15 p. m.	9.05 p. m
8.54 a. m.	1.49 "	Hyndman	11.41 a. m.	8 31 "
9 55 a. m.	2.50 "	Bedford	10.40 a. m.	7 30 "
12.15 p. m.	5 15 "	Huntingdon	8.25 "	5.20 "
3.30 "	6 45 "	Altoona	7.00 "	2.00 "
8.20 "	10.20	Pittsburg		8 00 a. m.
3.20 "	10 45 "	Harrisburg	3.10 a. m.	2 35 p m
6 50 "	4.25 a. m.	Philadelphia	11.25 p. m.	11.14 a. m
9 35 "	7 10 a. m.	New York	8.00 p. m	8 30 a. m
Arrive.			Leave.	

No change of cars between Cumberland and Huntingdon. Through cars between Huntingdon and Philadelphia, New York and Pittsburg. Passengers from points east of Hyndman, for Somerset take Express train west change cars at Hyndman, and arrive at Somerset at 6 25 p. m. Passengers leaving Somerset at 10:55 a. m. make close connection at Hyndman for all points East.

Tickets sold and baggage checked by PETER NOON, Agent, corner Baltimore and Liberty Streets, Cumberland and at the station. 'Bus will call at residences for passengers and baggage on notice left with agent.

J B. WOOD, Gen'l Pass. Agent

CHAS. E. PUGH, Gen'l Manager.

ROBT. L. HOLLIDAY, Superintendent

BALTIMORE AND OHIO RAILROAD

On and after November 7, 1886, trains will arrive at and depart from Cumberland as follows:

Arrive.	Westbound Trains,	Leave.
1.15 a. m.	No. 7 Express.	
2.37 a, m.	No. 3 Express	2.43 a. m
1.49 p. m.	No. 5 Express,	2 09 p. m
3.2 p. m.	No. 65 Accommodation.	3.25 p. m
7 25 p. m.	No. 1 Express.	7 45 p. m
	No. 81 Balto. & Graft. Ac	7.15 a. m
Arrive	Eastbound Trains.	Leave.
1:46 a. m.	No. 4 Express.	1.51 a. m
	No. 8 Express	2.50 a, m
7.30p. m.	No. 82 Accommodation.	
9 05 a. m.	No. 2 Express	9 25 a. m
2 20 p. m.	No. 6 Express	2.40 p. m.
8 08 a. m	No. 66 Accommodation.	8 13 a m.

Nos. 7, 3, 5, 1 4, 8, 2 and 6 daily; others daily except Sunday.

W. F LANDERS, Agent

Figure 191 – Schedule for 1887, collection of P. H. Stakem

Figure 191 – C&P Locomotive Number 62, J. G. Farrell collection

Figure 191 - Engine 6, renumbering of 17, J. G. Farrell collection

Figure 191 – C&P Locomotive Number 10, Collection of WMRHS

C&P engine classes

Two designated classes for C&P engines are known: Class K and Class L. The Class L included the last locomotives built at Mount Savage.

Class K, 2-8-0, built circa 1899, 148,500 pounds, 50" drivers, 21" x 26" cylinders, 160 psi operating steam pressure, 135,000 lbs. On drivers, tractive effort of 31, 395 lbs. Examples of this class include units 21 and 22.

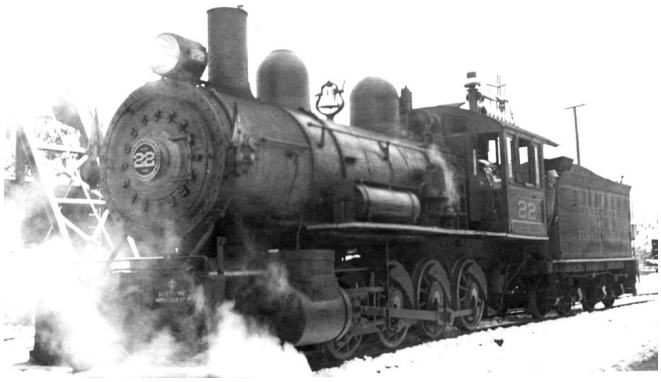


Figure 191 - Engine 22, C&P Class K, from J. G. Farrell collection

Class L, 2-8-0, built 1901-1917, 174,500 pounds, 50" drivers, 21" x 26" cylinders, 200 psi operating boiler pressure, 157,500 pounds on drivers, tractive effort of 39,000 pounds. Examples of this class are C&P road numbers 23-33. An erecting blueprint of the Class L survives in a private collection.

Figure 191 - C&P engine 24, an example of Class L, collection of J. G. Farrell

Figure 191 - Later model tender, collection of J. G. Farrell

Engine Tenders

C&P engines spent as much time running backwards as forwards, so the tenders were typically equipped with lamps and pilots. Two major types of tenders are in evidence. The earlier units have a large box-type oil lamp, and a 'cowcatcher' on the rear. The newer types have an electric lamp, and the cowcatcher is gone. The coal capacity was generally 7-9 tons, and the water capacity was 5-6000 gallons. The engines were always within reach of a source of coal; were usually close to a water supply; and were never far from the home shops.

Freight equipment

Not surprisingly, most of the C&P freight equipment consisted of coal hoppers. The 1923 valuation lists 2,500 freight cars, of which 2,489 are designed to haul coal. Let's look at the minority first.

The C&P listed five 34-foot box cars, numbered 801-805. The Baltimore Steel Car & Foundry Company built these in 1901. They were of outside-braced wooden body and underframe construction. Their capacity was 60,000 pounds, 1641 cubic feet. Their value was listed at $618 each. Six flat cars were also on the roster. These were of 60,000 pounds capacity, and were built by the C&P in 1917. These were 36 feet long. The earlier records listed a stock car as well.

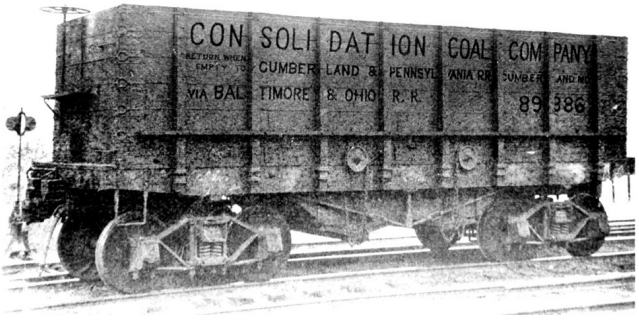


Figure 191 - Wooden gondola of the Consolidation Coal Company, P. H. Stakem collection.

Several types of gondola cars are listed on the roster. Thirteen cars in the number series 616-630 were built by the C&P during 1895-1898, and are of wooden construction. These are listed as 50,000 pounds capacity, and thirty-five feet long. Forty-four cars in the number range 631-707 were built by Baltimore

Figure 191 - C&P metal gondola, later model, road number 9046 - Deane Mellander collection.

Steel Car & Foundry in 1899, are of wooden construction, thirty-four feet long, and are listed with a capacity of 60,000 pounds. Road numbers 604-613 were 40,000 pounds capacity, thirty-one feet wooden gondolas. Numbers 501-600 were twenty-seven feet hopper gondolas Two hundred and thirty-seven cars numbered in the 2000 series were listed as being

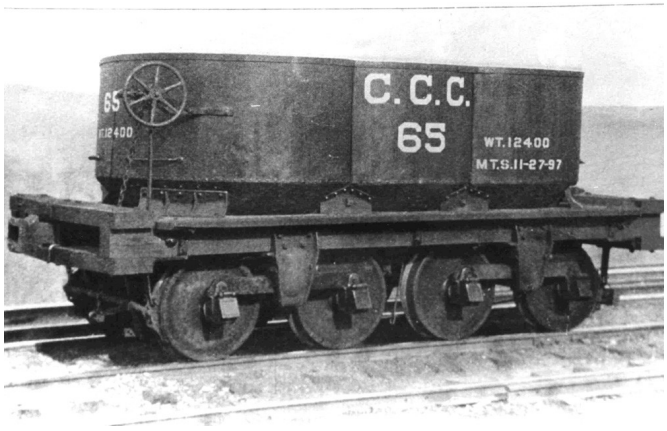


Figure 191 - Iron pot hopper of the Consolidation Coal Company, collection of P. H. Stakem

Figure 191 - Early tender, note large oil lamp and cowcatcher, collection of J. G. Farrell

rebuilt in the 1910-1914 time frame, with no original builder noted. These cars were of 60,000 pounds capacity, with wooden body, and composite underframe. Seven hundred and eighty-eight cars in the series 12200-12999 came from the Pressed Steel Car Company, circa 1905. These were valued at $942. each. They had a 100,000 lb. capacity, with steel construction.

The 7000, 8000, and 9000 series of hoppers were all of 100,000 pounds capacity. The 7000 series were wood, with a steel underframe. The 8000 and 9000 series were of all-steel construction.

All of the fleet of 1,407 hopper cars are listed as coming from the South Baltimore Steel Car & Foundry Company. There are three types. The first series, circa 1899-1901, are of wooden construction, and have a 60,000 lb. capacity. The next series in 1899, rebuilt during the period 1911-1916, have a wooden body but composite underframe, and the same capacity. The 100,000 lb. cars are listed as having a composite body, and steel underframe. They were

acquired in 1907. They had a tare weight of around 20 tons. Car numbers 2000-2350 were thirty-four feet hopper-bottom gondolas. Numbers 2400-2816 were twenty-four-feet hoppers. Numbers 12199 to 12999 were forty-feet flat-bottom steel gondolas, 100,000 pounds capacity. Around 1913, Janney couplers were becoming common on the cars, replacing link-and-pin.

The earliest coal cars in use on the C&P predecessors were of the iron pot hopper type. These were marked in the name of the railroad, or the coal company. These were still in use in Mount Savage as late as 1898. An excellent example of one of these cars

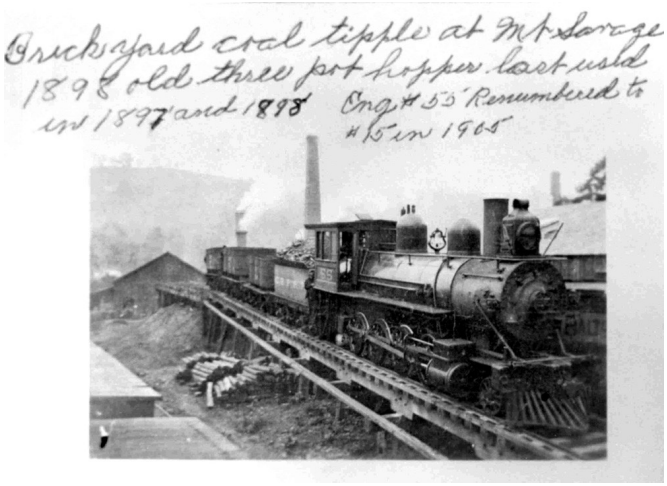


Figure 191 - C&P train with iron pot hoppers on brickyard tipple, William P. Price collection.

is preserved in the B&O Mount Clare Museum in Baltimore. The Winans-patented 1847 6-wheel hopper had a tare weight of 3 tons. The next design, an 8-wheel hopper, had a tare weight of 7 tons. The pot hopper had a tare weight of 8.5 tons. The next evolution in hopper design was a wooden-bodied, outside-braced gondola type car. A circa-1880 truss rod wooden hopper of capacity 25 tons had a tare weight of 14.5 tons. The modern steel hopper car

Figure 191 - C&P coach 23 in Cumberland, Deane Mellander collection

appears in coal service around the beginning of the 20th century. The grades and curves of the various mine sidings generally limited the C&P to the use of the 34-feet hopper.

Passenger equipment

The ICC valuation of 1923 lists nine coaches, two passenger and baggage cars, and two mail and

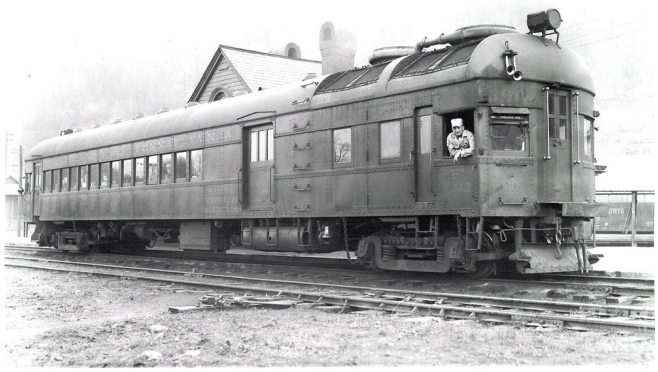


Figure 191 - The C&P Brill gas-electric, collection of P. H. Stakem

baggage cars. All used four-wheel trucks, and were wooden bodied. Most were from the Harland & Hollingsworth Company, except passenger car No. 16, from Jackson & Sharp, and some units acquired used. The Harland cars were 60 feet in length, with the older cars such as number 14 being 46 feet long. Business cars are discussed in a later section. Passenger equipment was typically painted Tuscan red, with gold lettering (Cumberland *Times*, August 8, 1937). Vermilion is the color reported in other sources.

The Brill gas-electric car was a development of the late 1920's for passenger service with a self-contained unit. The units had dual Hall-Scott gasoline engines of 300 horsepower each, coupled to Westinghouse generators. The car weighed 150,000 pounds, and could pull a trailing car. It was 75 feet long, coupler to coupler. C&P Brill 101 seated 73 passengers, and had an express freight section.

Number 14 was an older, forty-six-foot

Road number	length,	type
20	62 foot	baggage/mail
21	60 foot	combination (seats 54)
22	60 foot	passenger (seats 72)
23	67 foot	passenger (seats 72)
24	67 foot	passenger (seats 72)
25	60 foot	combination (seats 54)
26	62 foot	baggage/mail
27	60 foot	passenger (seats 72)
28	60 foot	passenger (seats 72)

passenger car. Number 16 was a fifty-foot passenger car, seating 58. The specifications of the other known

Figure 191 - C&P passenger & baggage express cars, Deane Mellander collection

Figure 191 - C&P Big Hook with crew, William P. Price collection.

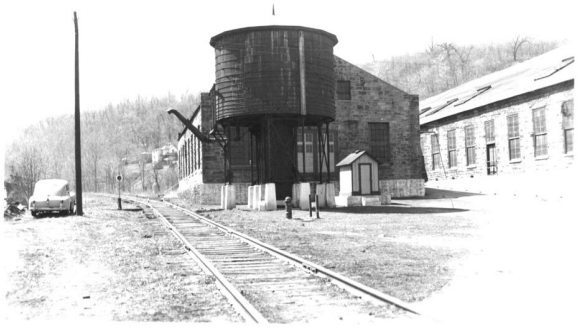


Figure 191 – Water Tank at Mt. Savage, J. G. Farrell collection

passenger equipment are shown below:

FORM 264 2M-8-37

Cumberland and Pennsylvania Railroad Company

PASSENGER TRAIN SERVICE

Between

Cumberland, Frostburg and Piedmont

In Effect 2:00 A. M. Eastern Standard Time

FRIDAY, MAY 1, 1931

WESTWARD

Miles		STATIONS	123 *	125 *
			A.M.	P.M.
0.0	Lv.	CUMBERLAND	8.20	3.20
0.6	"	HAYS ST. STATION	8.23	3.23
3.8	"	MT. SAVAGE JUNCT.	f8.29	f3.29
4.3	"	KREIGBAUM	8.31	3.31
7.4	"	BARRELVILLE	8.40	3.41
9.4	"	MOUNT SAVAGE	8.47	3.48
12.7	"	MORANTOWN	f8.58	f3.59
13.6	"	ALLEGANY	9.01	4.02
14.3	"	BORDEN YARD	9.04	4.05
15.3	"	NUMBER NINE	9.07	4.08
17.1	"	FROSTBURG	9.14	4.15
17.9	"	GRAHAMTOWN	f9.17	f4.18
19.6	"	BORDEN SHAFT	9.21	4.22
21.0	"	CARLOS JUNCTION	9.24	4.25
21.6	"	OCEAN	f9.26	f4.27
22.3	"	MIDLAND	9.28	4.29
25.2	"	LONACONING	9.38	4.40
28.5	"	BARTON	9.47	4.51
29.8	"	MORRISONS	f9.50	f4.54
31.0	"	LAUDER	f9.52	f4.56
31.8	"	GANNONS	f9.54	f4.58
32.7	"	FRANKLIN	10.01	5.00
33.4	Ar.	PIEDMONT	10.05	5.05
			A.M.	P.M.

* Daily except Sunday.
f Stops on signal to receive or discharge passengers.

(over)

FORM 264 2M-8-37

Cumberland and Pennsylvania Railroad Company

PASSENGER TRAIN SERVICE

Between

Piedmont, Frostburg and Cumberland

In Effect 2:00 A. M. Eastern Standard Time

FRIDAY, MAY 1, 1931

EASTWARD

Miles		STATIONS	122 *	124 *
			A.M.	A.M.
0.0	Lv.	PIEDMONT	6.05	10.15
0.7	"	FRANKLIN	6.09	10.19
1.6	"	GANNONS	f6.12	f10.22
2.4	"	LAUDER	f6.15	f10.25
3.6	"	MORRISONS	f6.18	f10.28
4.9	"	BARTON	6.21	10.31
8.2	"	LONACONING	6.32	10.42
11.1	"	MIDLAND	6.43	10 52
11.8	"	OCEAN	f6.45	f10.54
12.4	"	CARLOS JUNCTION	6.47	10.56
13.8	"	BORDEN SHAFT	6.50	10.59
15.5	"	GRAHAMTOWN	f6.55	f11.04
16.3	"	FROSTBURG	6.59	11.09
18.1	"	NUMBER NINE	7.05	11.15
19.1	"	BORDEN YARD	7.08	11.18
19.8	"	ALLEGANY	7.11	11.21
20.7	"	MORANTOWN	f7.14	f11.24
24.0	"	MOUNT SAVAGE	7.25	11.35
26.0	"	BARRELVILLE	7.30	11.40
29.1	"	KREIGBAUM	7.39	11.49
29.6	"	MT. SAVAGE JUNCT.	f7.41	f11.51
32.8	"	HAYS ST. STATION	7.47	11.57
33.4	Ar.	CUMBERLAND	7.50	12.01
			A.M.	P.M.

* Daily except Sunday.
f Stops on signal to receive or discharge passengers.

(over)

Figure 191 – C&P schedules

Figure 191 – Photo of big hook setting Ocean Mine windlass, Richard Arnold collection

Maintenance of Way and Non-Revenue Cars

Maintenance of way (MoW) is necessary for any railroad to maintain the infrastructure, and to respond to accidents and equipment breakdowns. C&P had its own maintenance of way equipment, and, like most railroads, used older equipment pulled from revenue service, and custom rolling stock. The wreck crane, 'Big Hook' number 105 was kept in Mount Savage. This was a 1902 steam unit with steel body & underframe. Besides its use in wreck clean-up, the C&P Big Hook was rented out to assist in heavy lift tasks. After the new windlass for the deep mine at Ocean arrived by flat car, the C&P hook was used to set it into place. The crane was also used to position the road bridge over Wills Creek at Locust Grove, at the West end of the Narrows.

A smaller crane, numbered 102, was constructed by the C&P in 1901, and consisted of a

Figure 191 - C&P special car 605, collection of Harold Vollrath

40,000 capacity wood underframe car equipped with a 5 ton manual crane. It was kept in Franklin. No pictures are known to exist. There were two riggers' flats, No. 103 and 104, 40,000 pounds capacity, built by the C&P in 1904 of wooden construction. These held auxiliary cables and blocks, and sometimes an old tender water tank for the crane. There was also an electric service car, built by C&P in 1889, and numbered 106, based on a 50-foot wooden car. The unique C&P tool car, number 109, was based on a 60,000 lb. capacity wooden car with composite underframe. C&P special car No. 605 was used as a tunnel icebreaker.

The Georges Creek & Cumberland also had a crane, a 15 ton hand-cranked one, built by Yale & Towne. Numbered 13, it went to the Western Maryland, and was scrapped in 1920.

There are rumors of a custom C&P snow plow from the Mount Savage shops, but no photos or descriptions have been found. Equipment lists filed with the ICC also show two circa-1898 converted hoppers, numbered 107 & 108, 50,000 lb. capacity, and steel construction. These were typically used for ballast. The ICC roster also lists a cement car, no. 31. This was built by the C&P in 1894, and was a 37-foot wooden unit, with four-wheel arch-bar trucks.

Ten handcars, and fifteen push cars were rostered in 1917. Track cars were based at Mount Savage yards and Carlos Junction. One handcar and four push cars were kept at Eckhart. Also included with the maintenance equipment were a concrete mixer, two narrow-gauge concrete cars, and a Climax stone crusher.

C&P had a valuable asset in the car and locomotive shops in Mount Savage. With the facilities and experience for locomotive and rolling stock rebuilding and repair, C&P was to a great degree self-sufficient. This allowed the recovery of assets that might otherwise have to be abandoned. Even competitors such as the Georges Creek and Cumberland used the shops when necessary, such as the GC&C accident in January 1883 that sent two of its ten locomotives and fifty-one cars off the trestle at Vale Summit. The locomotives were recovered and sent to Mount Savage for repair.

Figure 191 - Caboose 141 - no cupola, Harold Vollrath collection

Figure 191 - Photo of business car - collection of Deane Mellander

The C&P had two business cars, the first being constructed in the home shops in 1899. Number 15 was 37 feet in length, with a wooden body and underframe, and composite, 4 wheel trucks. Number 101 was purchased from the Pullman Company, and was 75' 6" feet long, with a steel over wooden sheathing body. The frame was metal, and six-wheel trucks with 36" wheels were used. This car was valued at more than $26,000. It was equipped with Westinghouse air brakes, and hot water/steam heat. It had a 60-volt electrical system, using batteries and axle-driven generators. The car had a water supply system, and sported a kitchen, dining room, state rooms, staff quarters, and an observation room. The car was painted Pullman Green, and the interior featured Mexican and Cuban Mahogany. It was just the thing for those weekend outings to Moscow and Pekin. Unfortunately, it would not clear the Frostburg tunnel.

Most of the C&P cabooses were four-wheel units, built at Mount Savage. The 1922 ICC Valuation lists nineteen of these in service, valued at $640 each. They were of wooden construction. The design followed those of the Pennsylvania Railroad and the

BRIEF SPECIFICATIONS OF PRIVATE CAR No. 102

------o------

Date Built - 1907
Length over all - 79' 6"
Length over End Sills - 75' 6"
Length of Truck Centers - 53' 6"
Height at Eaves - 11' 5"
Height over all - 14' 4"
Width at Eaves - 10' 1"
Weight - 146,100 pounds
Body - Steel over wood sheathing
Roof - Metal
Center Sills - 15" I Beam Sills
Couplers - Janney
Draft Gear - Miner A-3-P
Air Brakes - Westinghouse - Automatic Slack Adjuster - 18" Cylinder
Trucks - Six Wheel - Commonwealth Cast Steel Truck Center - 5 x 9
Axles - 36" Rolled Steel Wheels
Bolsters - Commonwealth Cast Steel Double Pullman Type
Heating System - Double Circulation Hot Water in connection with Gold
Car Heating Company, automatic pressure regulator, steam
trap and end train pipe valve
Lighting System - Axle Propelled - 60 Volt - 32 Cell Batteries - all
arrangement of circuits are Pullman standard
Water System- Pullman Standard Single Tank Air Pressure System
Plan - Kitchen, Servants Quarters, Dining Room, Pullman Section, 2
State Rooms, Observation Room, Observation Platform
Inside Finish - Mexican and Cuban Mahogany
Outside Finish - Pullman Green

Cumberland, Md.,
May 23, 1934.

Figure 191 - Specifications of C&P Pullman car - collection of Patrick H. Stakem

Western Maryland. Cabooses No. 33 and 34 were 37-foot, wooden bodied, eight-wheel units. These were probably older converted passenger coaches. No pictures are known to exist of these units. They were built by the C&P in 1894 and 1898. Early C&P four-wheel cabs had cupolas. Following Western Maryland practice, later units did not. No C&P cabooses were involved in the Western Maryland merger in 1953.

Four C&P cabs were rostered as Western Maryland Maintenance of Way equipment, including two converted to weed burners. All were scrapped before 1953.

Tunnels, Bridges

The route of the C&P included three single-tracked

Figure 191 - Caboose 139 - no cupola, Deane Mellander collection.

tunnels, and numerous bridges. One tunnel was built under the Town of Frostburg, to allow the line from Mount Savage to continue to Piedmont. This 537-foot brick and stone lined tunnel is still in existence and is passable. The two other tunnels on the line were on

the Eckhart Branch, built by the Maryland Mining Company. The rail section from Eckhart to Wills Creek via Braddock Run was completed in 1846. This section included two unlined tunnels; the one closest to Cumberland was 506 feet in length, and the upper tunnel was 335 feet long. The tunnels were separated by 0.6 mile. These tunnels were removed as part of the Interstate 68 freeway construction in the 1970s. The Frostburg tunnel involved the excavation of 6,560 cubic yards of material. The Eckhart Branch tunnels involved removal of 6,050 and 3,990 cubic yards of material.

Almost anywhere the C&P wanted to go, it needed bridges. This was due to the practice of using the easy grades of streambeds to locate track. The C&P line needed to cross and recross Wills Creek, Georges Creek, Braddock Run, and Jennings Run. Not all of the bridges crossed water. Two bridges were used to cross the Western Maryland Railway's Connellsville Extension east of Frostburg. These are still in use in 1999 by the Western Maryland Scenic Railroad. Numerous bridges from Midlothian south to Westernport are still actively supporting coal trains of the CSXT's Georges Creek Sub. The Eckhart Branch bridge over Wills Creek at the western end of the Narrows stood until removed in 1998, despite the best efforts of raging flood waters. The 1923 valuation lists forty bridges of various types, as shown in the following table. Distances are reckoned from the Queen City Station in Cumberland. Distances are given, in feet, from the reference point, in the form 123+45, which indicates 12,345 feet from the zero mark

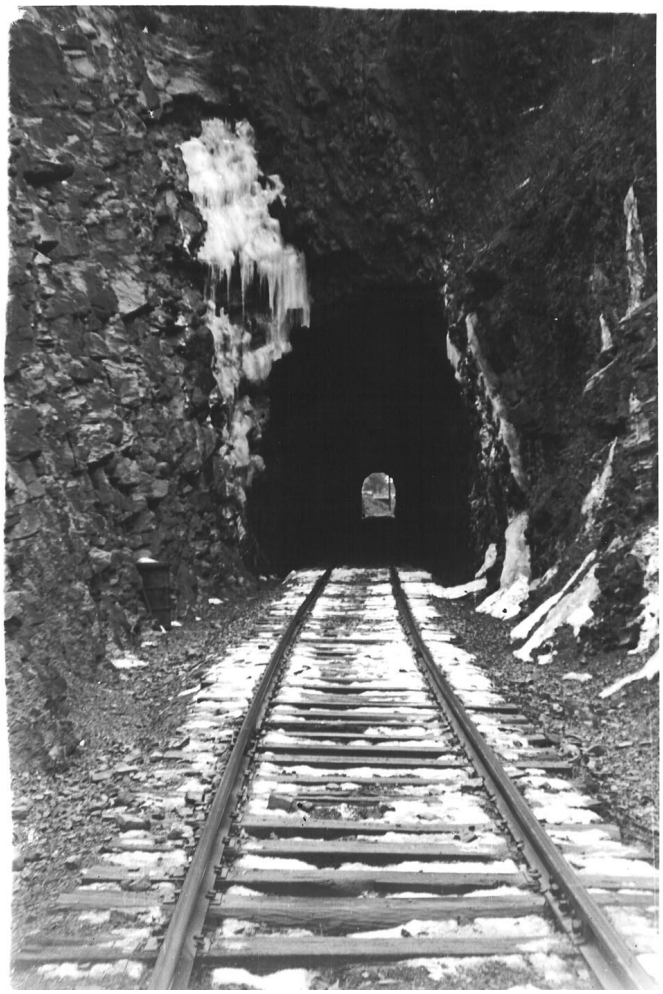


Figure 191 - Eckhart Branch tunnel, William P. Price photograph

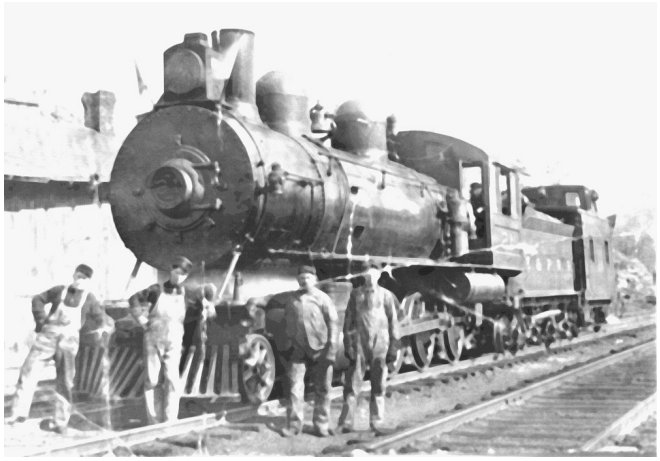


Figure 191 - A C&P caboose with cupola, behind engine No. 21, a Baldwin, at Mount Savage. J. G. Farrell collection

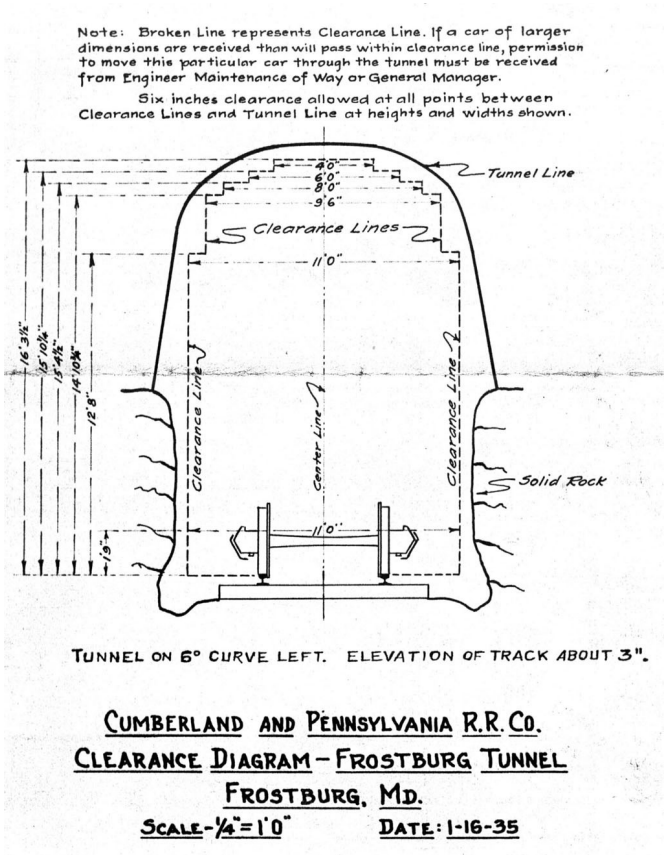

Note: Broken Line represents Clearance Line. If a car of larger dimensions are received than will pass within clearance line, permission to move this particular car through the tunnel must be received from Engineer Maintenance of Way or General Manager.
Six inches clearance allowed at all points between Clearance Lines and Tunnel Line at heights and widths shown.
Tunnel Line
Clearance Lines
Clearance Line
Center Line
Clearance Line
Solid Rock
TUNNEL ON 6° CURVE LEFT. ELEVATION OF TRACK ABOUT 3".
CUMBERLAND AND PENNSYLVANIA R.R. CO.
CLEARANCE DIAGRAM – FROSTBURG TUNNEL
FROSTBURG, MD.
SCALE-¼"=1'0"
DATE: 1-16-35

Figure 191 – Frostburg tunnel clearance diagram

Rails and Interchanges

The C&P interchanged with the B&O at Cumberland and Piedmont, and with the Western Maryland at switch number nine and Westernport. The interchange with the Pennsylvania Railroad was at State Line, just north of Ellerslie, Maryland.

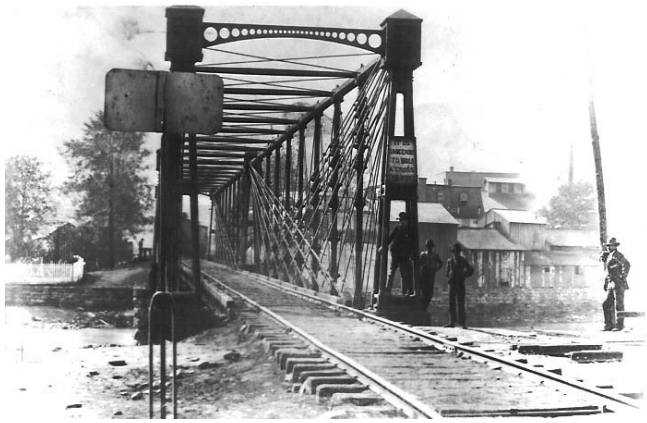


Figure 191 – Bollman Truss Bridge over Potomac between Westernport and Piedmont. Built 1866. Picture taken 1887. P. H. Stakem collection

Figure 191 - Truss bridge at Westernport, Western Maryland Railway Historical Society collection.

Figure 191 - Cross and recross Georges Creek, collection of William P. Price

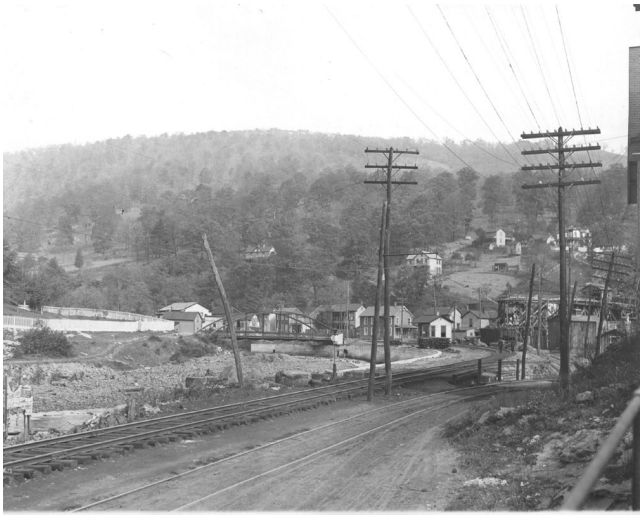


Figure 191 – Bridge between Franklin and Westernport over Georges Creek. P. H. Stakem collection

Figure 191 - C&P connection with the Pennsy - Deane Mellander collection.

The 1923 ICC valuation documents for the C&P list more than 50 miles of main line, with almost 11 miles of second and third track. In addition, slightly more than 25 miles of yards and sidings are listed, for a total of almost 87 miles of track laid. Most was 80-pound rail, with some -85, -90 and -100 pound rail. (Rail is rated in pounds per yard.) Fifty-six pound relay rail (circa 1880) was used, with some ranging to 85 pounds. The original Mount Savage Rail Road featured the use of the home rolled product, the first viable alternative to imported English rail.

Ballast for the line was crushed stone from Kreigbaum (Corriganville), and cinders and granulated slag from Mount Savage. The mechanical interlocking machine at Mount Savage Junction, circa 1902, was a 35-lever unit. For comparison, the unit at B&O's ND tower, Viaduct Junction in Cumberland, was a 45-lever unit.

Signaling and Control

Figure 191 - Mount Savage Junction Tower, note semaphores, William P. Price collection.

The C&P operated according to established and published railroad rules and practices, similar to those of most railroads. C&P trains operated in a block system, with telegraphic, later telephonic, communications. A block is defined as a section of track between train order signal stations. Dispatchers were located in Cumberland, in offices over the Cumberland Cloak & Suit Company on Baltimore Street. In 1917, the office was equipped with modern equipment such as typewriters, and even a Burroughs mechanical calculator. Train order stations were at Mount Savage, Frostburg, Lonaconing, and Piedmont. Clearance form 'A' was required for trains to leave a station. Form 31, requiring a trainman's signature, and Form 19, not requiring signature, were used.

During the working day, there were ten manned offices along the line, and 22 call boxes. When a train entered a block, the operations report went to stations east and west of the block. The standard telegraphic code was '27' East, and '32' West. The reply was '13 B 27' or '13 B 32". There were two watch houses for crossings at Knox and Valley Streets in Cumberland, and one in Westernport. An Eckhart Junction watchbox was established in 1902.

Eleven semaphore signals were used to control train movements at switches. Dwarf semaphores were used as well, on sections with low speed operation. The wires of the Western Union Telegraph Company followed the C&P right-of-way. Operations on the C&P were simplified by the slow operating speeds, and single-track road. Trains were restricted to 10 mph through towns, and 4 mph through tunnels. For descents with loads, trains were restricted to 15 mph on the main line, 12 mph on branches. The maximum speed allowed was 30 mph for first class trains. Before passenger service was discontinued, passenger trains were allowed to run faster.

Thirty minutes were allowed for the trip from Eckhart to Eckhart Junction at the Narrows, running eastbound light. Eastbound tonnage trains leaving Frostburg were spaced at least 15 minutes apart.

Operations on steep grades in the mountains required special attention to brakes. Circa 1940, operations allowed a certain maximum tonnage per good brake. A good brake was defined as the retaining valve holding pressure for a prescribed number of minutes, and all brakes were tested. On the Eckhart or Frostburg-Cumberland run, the rule was 85 tons per good brake. The flatter Frostburg-Piedmont run allowed 100 tons per good brake. The conductor had to get the number of reported good brakes from the brakeman, and divide this into the train tonnage, to

determine if they could proceed. The brakeman was

Form 51 5M 8-44 P.P.Co.

Form 19 | **Cumberland and Pennsylvania Railroad Company** | Form 19

TRAIN ORDER NO. 374

General Manager's Office, Cumberland, Md., March 6 19[illegible]

To J. T. Garfield at Westernport

X ____ Operator ____ M.

Eastward Train not to proceed to Meadow Mine Switch, on Eckhart Branch, between Lonaconing and Westernport

Conductor and Engineman Must Each Have a Copy of This Order

Made [illegible] at [illegible] M. Received by [illegible] Operator

Figure 191 – Form 19, collection of P. H. Stakem

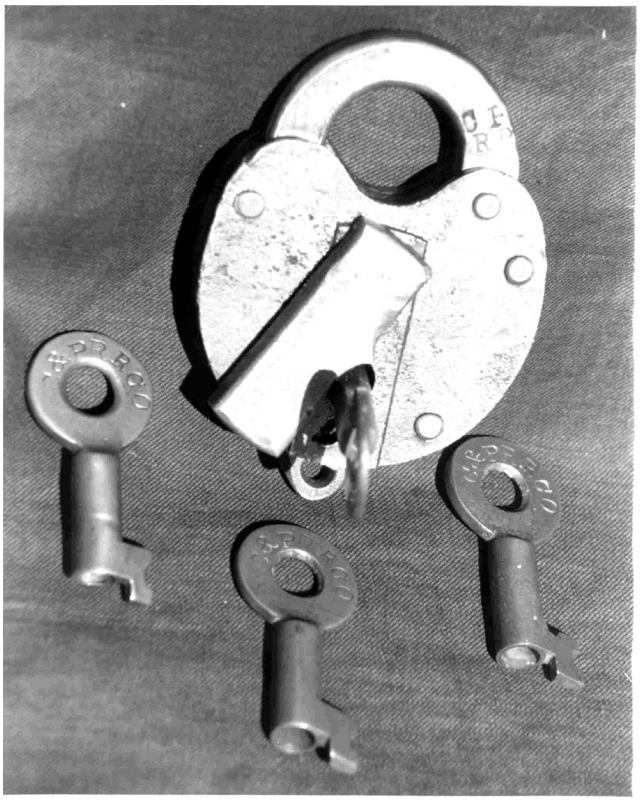


Figure 191 - C&P lock & key, Patrick H. Stakem photo.

Figure 191 - Looking towards Cumberland through the Narrows**.** The Eckhart Branch Bridge is foreground right.

expected to double-check this calculation. Being able to do sums and long division in the field was a necessary skill for these job positions.

Before the introduction of knuckle couplers in 1898, the old link-and-pin system caused numerous accidents resulting in death and maiming. Conrad Fazenbaker was one of the unlucky ones to be killed in a link coupling accident on the C&P in Piedmont in 1893.

Facilities

This section covers freight houses, engine houses, and

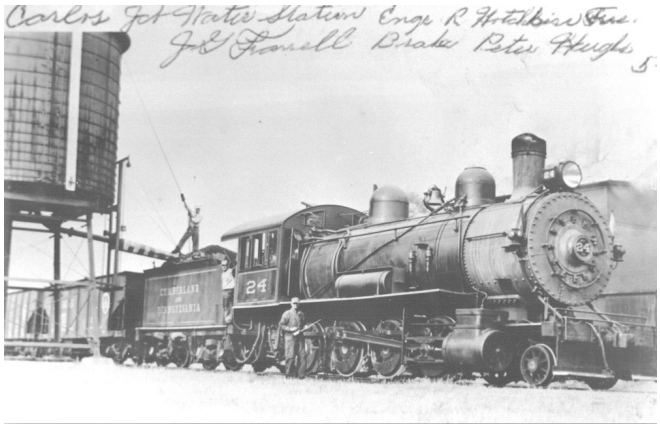


Figure 191 - Engine 24 takes on water at Clarysville, J. G. Farrell collection

offices. Passenger depots will be covered in the next section. There were ten water tanks located along the main line, and four on the Eckhart Branch. These were usually served by an adjacent well, but some had city water. Earlier wooden water tanks were replaced by steel ones in the Western Maryland era.

In Cumberland, there was a Yard Master's office at Williams Street, circa 1912. There was a

Freight house (1900) in Kreigbaum, and another Yardmaster's Office near Barrellville. On the line before Morantown, there was a freight house with a 100-ton track scale, scale house, and office. Freight houses were also located at Allegany, Midland, Franklin, and Woodland. Gannons only had a platform. There was a coal house at Kreigbaum for the State Line Branch. There were a total of nine tool houses, including one at Valley Street in Cumberland. Carlos had a tool house and track car stands.

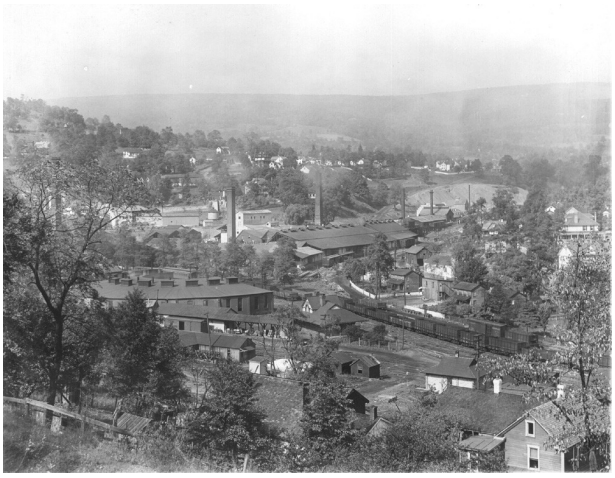


Figure 191 - The Mount Savage roundhouse, collection of William P. Price

The major C&P facilities were in Mount Savage, the heart of the railroad. These included a sand house, an engine house (1888), carpenter shop and supply house, an electrical supply building, a car inspector's office, hose house, and a lumber store. The office building, built in 1902 of locally produced enameled brick, still stands. The brick round house, circa 1907, had a sixty foot deck 'Armstrong' turntable. There was an associated oil house and supply shed. The stone machine shop and car shop from 1866 still survive. The car shop was extended with a wooden structure in 1906.

Figure 191 - C&P facilities at Franklin, collection of William P. Price

Figure 191 - Coming into Ocean near Midland, William P. Price collection.

Location	mp	elev	gal	dia	height	notes
Main line						
Barrellville	7.4	1010	50000	24	16	
Mount Savage	9.4	1214	50000	24	16	deep well & steam pump
Shops	9.7		40000	22	16	
Allegany Sta.	12.	1586	30000	20	14	
Frostburg	15.5	1920	15000	16	12	
Carlos Jct.	19.5	1731	30000	20	14	
Carlos Branch			20000	18	12	
Gilmore	21.5	1696	30000	20	14	
Lonaconing	23.7	1474	25000	20	12	
Franklin	31.1	948	50000	24	16	deep well & city water
Eckhart Branch						
Lafferty's	2.8		20000	18	12	
Middle siding	5.8		20000	18	12	
Clarysville	10.	1576	20000	12	12	
Eckhart	11.3	1725	30000	20	14	

The blacksmith shop dated from 1900. There was a paint shop, and paint supply house. Next to the two-hundred-foot long passenger car shed was the tin and upholstery shop. There was also an ash pit and trestle. The power house at the Mount Savage works, circa 1908, included dual 50-kilowatt, 250-volt generators. In addition, there were two large air compressors for the shop tools, a fire pump, a boiler feed pump, and a converted locomotive boiler, 53 inches in diameter, and 21 feet long.

Carlos Junction was the site of a sand house, oil house, engine house, and five units of company housing. The double-block houses, reserved for company employees, came with C&P standard design chicken coops and outhouses.

Further down the line in Franklin was a 1889-era carpenter shop, tool and oil house, office, passenger car shed, sand house, blacksmith and supply shop, and 1903 vintage engine house.

At Eckhart were located a circa 1880 freight house, a carpenter shop, a sand house, a hose house, an oil house, and an engine house with an office and supply area. The foundations for these structures survive. Eckhart had one handcar, and four push cars assigned to the branch. After you pumped the handcar up the 2.8% grade from Cumberland, you were qualified to go over to Mount Savage, and rotate one of those big Consolidation engines on the turntable all by yourself.

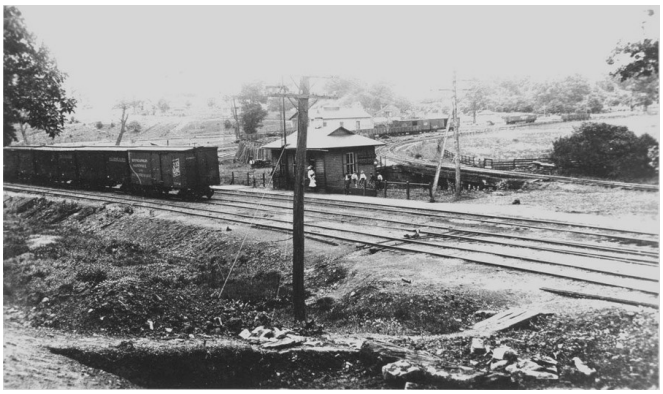


Figure 191 – Carlos Junction, collection of J. G. Farrell

Figure 191 - Photo of water tank at Lafferty's, J. G. Farrell collection

Accidents of the C&P

Like any railroad, the C&P had its share of accidents, derailments, and break-downs. Minor incidents were handled on the road by the operating crews. Major problems required the wreck train and Big Hook being dispatched from Mount Savage. This section discusses some of the accidents on the C&P.

1. Eckhart Branch Horseshoe Bend, 1917. In this incident, the engine took the curve too fast, and fell over to the outside. Here, we have a unique view of the underside of a C&P engine, without having to venture into the pit in the Mount Savage shop.

Figure 191 - Underside of a C&P engine, William P. Price collection

2. C. E. Detmold on Potomac Wharf Branch, 1860. This was a classic accident involving a Winans camel, almost into Wills Creek, as the bridge collapsed under the locomotive.

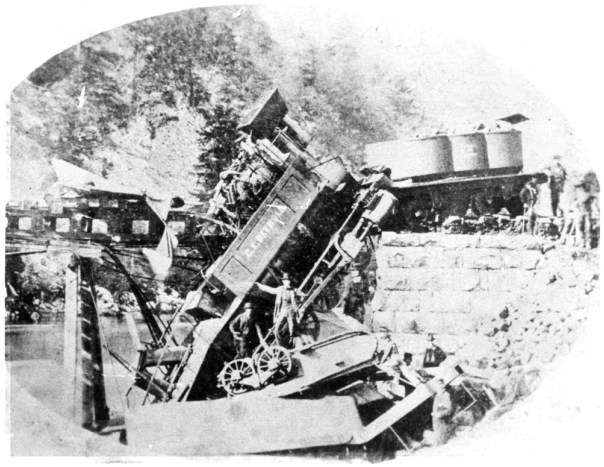


Figure 191 – C E Detmold accident, J. G. Farrell collection

3. Flood of St. Patrick's Day, 1936. This flood is well remembered in the region, due to the extensive damage it inflicted. A lot of track was washed out, and downtown Cumberland was under water.

4. The engine is in the creek, at the bridge abutment,

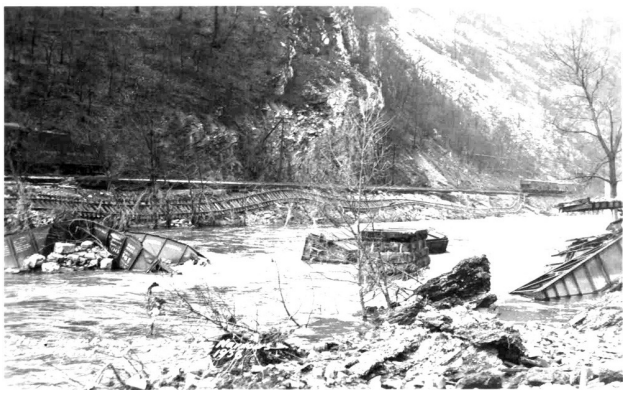


Figure 191 – Track washout, Deane Mellander collection.

probably the Potomac between Piedmont and Westernport. Notice the wreck crane on Bridge. 1905.

5. Engine 28 in a bridge collapse at Gannon, Feb 13,

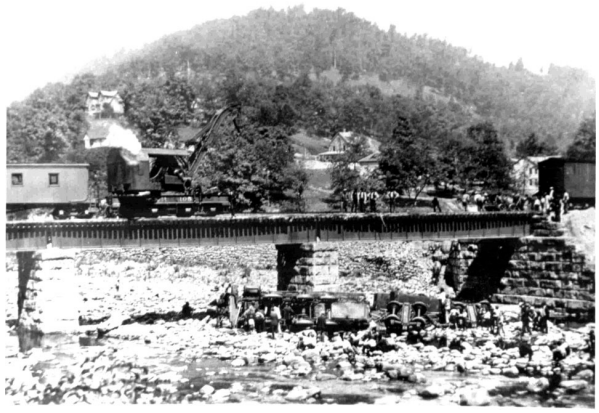


Figure 191 – Engine in creek; crane on bridge, William P. Price collection.

1897. The newspaper account mentions the time of the accident as 11:40 pm on Saturday, on a tri-weekly train. A track walker had inspected the trestle at 11 pm. After the locomotive passed over the bridge, the tender and two coaches went in the creek. The twisting action of the tender put the locomotive on its side. John R. Ross, the engineer, was fatally scalded by escaping steam, and died on Sunday. His fireman, John N. Howard, managed to jump, and escaped with bruises. A dozen passengers, some railroad employees, scrambled to safety from the icy waters. Here engine 29 pulls a sister engine 28 out of the

creek.

6. Derail at Borden Yard - 1908.

Figure 191 - Bridge collapse, Gannon, Western Maryland Railway Historical Society collection

7. Boiler explosion of engine 22 at Westernport, 1873

Engine 22, a Winans camel that had come from the Canandaigua & Elmira, via the Northern Central, suffered a boiler explosion in 1873 at Westernport. It was rebuilt and returned to service until scrapping in 1891. A sister engine, 23, had no reported problems, but was pulled from service, and rebuilt at the same time. It served until 1890. Those engines were originally built in 1867.

Figure 191 – Derail at Borden Yard - 1908. Collection of WMRHS

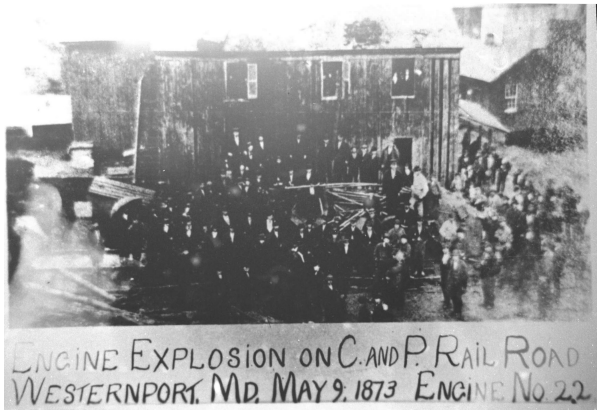


Figure 191 – Boiler explosion at Westernport. Collection of WMRHS

Figure 191 - Derail of WM hopper at Moscow, Western Maryland Railway Historical Society collection

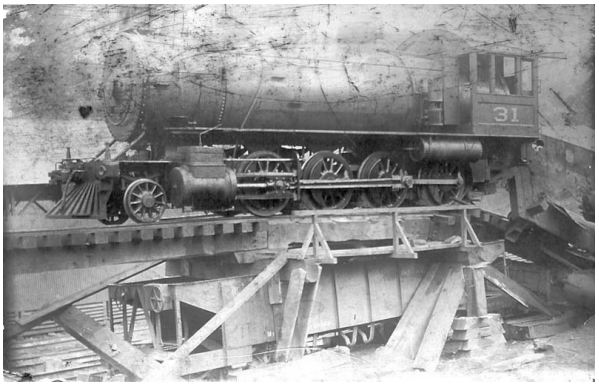


Figure 191 – Engine 31 backed a little too far on the Mt. Savage Tipple. Richard Arnold collection

Figure 191 - Piedmont Station, J. G. Farrell collection

Figure 191 - Lonaconing Station, J. G. Farrell collection

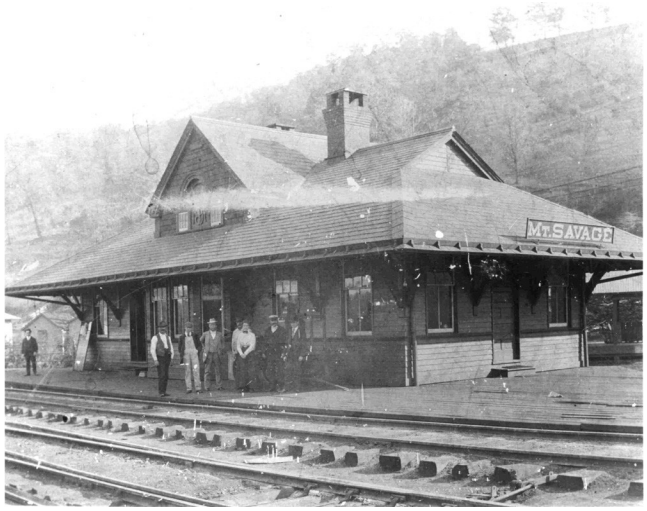


Figure 191 - Mount Savage station, J. G. Farrell collection

7. Passenger Service

The history of passenger train service in Allegany County dates back to the arrival of the B&O in 1842. By 1845, service was provided to Mount Savage, using B&O equipment over the Mount Savage Rail Road. Three trains per day were operated, with one coordinating with the arrival of the Baltimore train. The trip from Baltimore took 8 1/2 hours at that time, which was a vast improvement over the stagecoach. We have a contemporary account of the train ride to Mount Savage from the Saturday Evening Post of 1860 (ref. 11).

The stations

Passenger stations were located at Hay Street in Cumberland (1878), Kreigbaum (1888), Morantown (1880), Borden Yard (1890), Grahamtown (1887), Borden Shaft (1892), Carlos (1899), Midland (1889), Tannery (1893), Lonaconing (1889), Moscow (1890), Barton (1889) and Mount Savage. The station at Frostburg, just east of the tunnel portal, got a new lease on life as a specialty restaurant for the Western Maryland Scenic Railroad in the 1990's. The station in Piedmont, shared with the B&O, partially survived as the first floor of a former two-story structure. The dates given above are the listed construction dates for the stations. The Lonaconing depot was torn down in 1960. None of the other stations survive.

The schedule & service

This section will view the railroad as a transportation infrastructure -- enabling people in the outlying communities to go to market, and to attend school in the cities. Passenger through service was provided by connection with the B&O at Cumberland and

Figure 191 - Hay St. Station in Cumberland, William P. Price collection

Piedmont. Combination tickets were popular. These provided round trip transportation and a ticket to the popular shows at the Academy of Music in Cumberland. Special trains on Sundays provided transportation to church and social events. Baseball games and Fourth of July celebrations also were served by special trains. Narrows Park, in LaVale, was a popular weekend picnic destination, and later for Chautauqua meetings.

In 1872, according to the schedules published in the Frostburg Mining Journals, there were two round trips a day from Cumberland to Eckhart, and two from Cumberland to Piedmont. A Brill Gas-Electric car replaced steam-power for passenger service in April 1929.

Figure 191 - Interior of car, William P. Price collection.

Louis Ort, owner of Ort's Bakery in Cumberland, had for a time a private railcar on a C&P Eckhart Branch siding. This car was previously owned by Western Union.

Mail and Express

The C&P provided the mail and the railway express service to Frostburg and the mining communities of the Georges Creek. The advantage for the railroad of carrying the mail was two-fold: it provided regular revenue that could subsidize passenger service, and it provided a level of protection from interference. With mail on board, it was known that interference with a train was 'a federal offense'. The railway express/mail car was usually placed first in the consist, behind the tender. The railroad charged per bag of mail not per weight, so the bags were usually stuffed full. Bags of empty mail sacks, called "bums", rode for free. Will Lowdermilk, Postmaster of Cumberland, and author of the "History of Cumberland, Maryland" (ref. 33) was responsible for giving the U.S. Mail contract to the C&P in 1872. Mail by train was more reliable than the alternative, which was the stagecoach. With multiple trains per day, good service was provided to the various mining communities of Eckhart, along the Jennings Run, and the Georges Creek areas.

The Cumberland & Westernport Electric Railway

In the 1890's, interest began to form in a trolley system to service the Georges Creek area. In 1893, the Lonaconing and Cumberland Electric Railway was incorporated. This was followed by the incorporation of the Frostburg, Eckhart, and Cumberland, the Lonaconing, Midland, and Frostburg, and the Westernport & Lonaconing by 1901.

In 1901, construction started from Frostburg towards Cumberland. By 1902, the line stretched from Frostburg down the Georges Creek to Lonaconing. The first passenger run was made on April 24, 1902. At Cumberland, an interchange was made with the Cumberland Electric Railway, a local city service. There was a ticket office and terminus at Baltimore and Centre Streets. Hourly service was provided. The Cumberland and Westernport Electric Railway was formed by merger in 1906. Extension of the system to Salisbury, Pennsylvania, and to Keyser, West Virginia, were considered, but never built. Miners specials ran down the Georges Creek, to provide transportation for the different shifts.

The trolleys also carried the mail and parcels over their 27 miles of standard gauge track. The growth of freight and express service lead to the use of a freight-only trolley, making two trips per day.

Mostly Brill equipment was used, with some Southern cars being acquired later in the operation. There was a coal-burning 500-kilowatt power station and a car barn at Clarysville, serviced by the C&P. There was an auxiliary 400-kilowatt power station at Reynolds.

By 1924, the private automobile was making inroads on ridership of the traction lines. The operation was sold to Cities Service, which replaced the trolleys with buses and freight trucks by 1925. This scenario was repeated countless times across the United States, as the General Motors-backed Cities Service phased out electric trolleys in favor of diesel trucks and busses.

The C&WE was not to be outdone in computational capability either, The Cumberland Times mentions, on March 6, 1916, "An ingenious machine – The Cumberland and Westernport electric railroad had just installed in their office a very ingenious machine that adds, subtracts, multiplies,

divides, works proportion, cube root, and shows the position of the decimal."

Rail service was discontinued between Frostburg and Westernport on July 22, 1925 and between Frostburg and Cumberland on August 4, 1926. The right-of-way and equipment was transferred to the Cumberland & Westernport Transit Company, which held the right-of-way until 1943. The Company was finally dissolved in 1955. The sole surviving director of the company, in 2002, is Nelle Blunk, of Licking Creek, Ohio.

Passenger Service on the Georges Creek and Cumberland

Besides the C&P and the trolley, the residents of the Georges Creek valley could opt for the Georges Creek and Cumberland Railroad passenger service.

GC&C passenger stations were located at Cumberland, Vale Summit, Midland, and Lonaconing. The station at Lonaconing was located up the hill from the town, and was reportedly inconvenient to reach. The right-of-way of the line is still evident in this area, but no rails remain. The GC&C used the Hay Street Station in Cumberland, and made a passenger stop at Mechanic Street.

The GC&C rostered a 4-6-0 passenger engine. The GC&C had several passenger cars, including an observation car with open sides. This car was popular for political outings and picnic excursions, but not in the winter.

The January 18, 1887, published schedule shows two trains per day from Cumberland to Lonaconing (except Sundays). If you took the 10:45 AM from Lonaconing, you could lunch in Cumberland before catching the 1:15 PM to New York over the Pennsylvania Railroad. This express service would arrive in New York at 7:10 AM the next day. There was checked baggage service on this line.

Figure 191 - GC&C's Midland Station, collection of WMRHS

Figure 191 - GC&C's Clarysville Station, collection of WMRHS

Figure 191 - GC&C Station at Lonaconing, collection of WMRHS

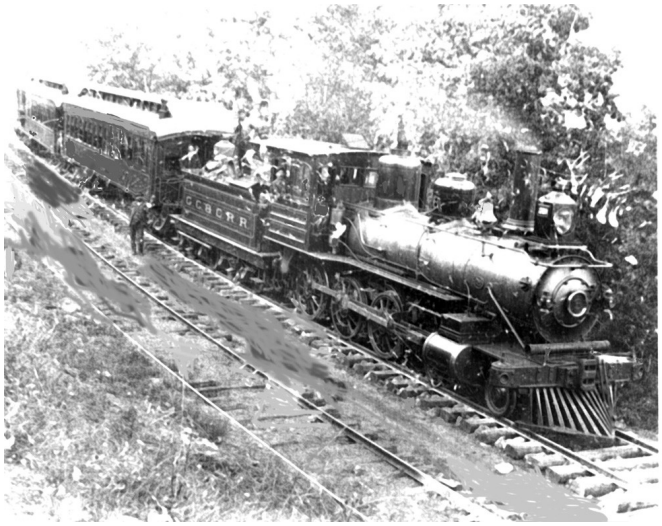


Figure 191 - GC&C passenger train, collection of P. H. Stakem

SHORT LINE PASSENGER TRAINS,
DAILY, Sundays excepted.
From HAYS STREET STATION, Cumberland.

OUTWARD-BOUND G. C. & C. R. R. TRAINS
Leave Cumberland....7:15 a. m.; 1:30 p. m
Arrive Vale Summit..8:00 a. m.; 2:15 p. m
Arrive Lonaconing....8:30 a. m.; 2:45 p. m
Pennsylvania Railroad trains leave at 8:20 a. m. and 1:15 p. m., for Bedford, Pittsburgh, Philadelphia and New York.

RETURNING G. C. & C. R. R. TRAINS.
Leave Lonaconing...10:45 a. m.; 5:00 p. m
Arrive Vale Summit.11:15 a. m.; 5:30 p. m
Arrive Cumberland..12:00 noon; 6:15 p. m
Pennsylvania Railroad trains from Bedford, Pittsburgh, Philadelphia and New York arrive at 12:15 and 9:05 p. m.

JAMES A. MILLHOLLAND,
General Manager.

JANUARY 18, 1887.

Figure 191 - GC&C Service, Jan. 1887, collection of P. H. Stakem

8. The Route of the C&P

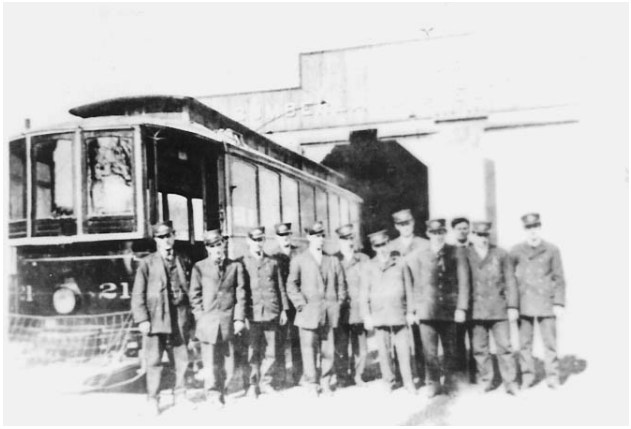


Figure 191 – Cumberland Electric Railway Co. #21 at Barn on Centre St. Cumberland, P. H. Stakem collection

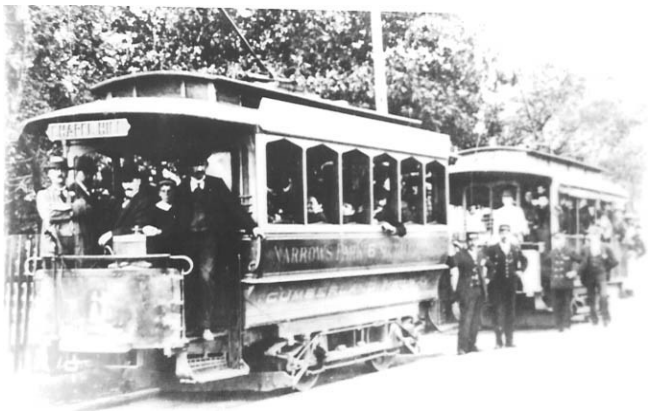


Figure 191 – Cumberland Electric Railway Number 6, First Day of Operation, 1891. P. H. Stakem collection

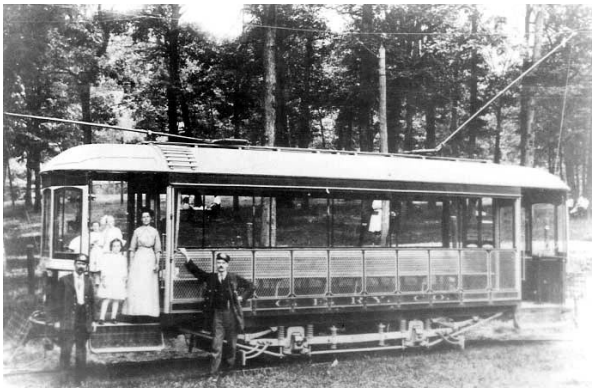


Figure 191 – Cumberland Electric Railway Co., Braddock Heights, P. H. Stakem collection

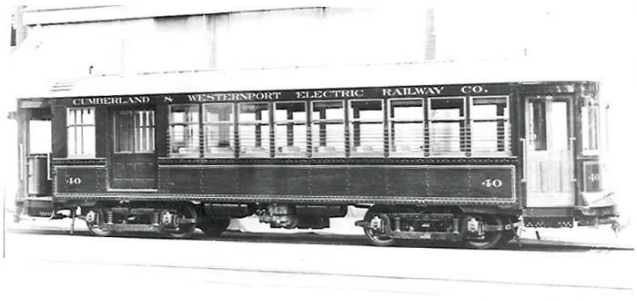


Figure 191 – C&W Electric Railway Co. Combine #40, P. H. Stakem collection

This chapter discusses the various routes and branches of the C&P in a geographic sense. The C&P operated almost exclusively in Allegany County, Maryland. C&P trains operated for short distances on PRR track in Pennsylvania, and on B&O tracks in West Virginia, between Piedmont and Keyser.

The Eckhart Branch

The Eckhart Branch extended 12.4 miles from the B&O's Queen City Station in Cumberland to the Eckhart and Hoffman mines. Mileage along the Eckhart Branch is calculated from 0.0 at the Queen City Station. The section from Eckhart to Wills Creek was completed in 1846 by the Maryland Mining Company. This section included two tunnels. The C&P engines were restricted to a speed limit of 4 mph through the tunnels. This branch was also the location for a large "horseshoe" curve at Clarysville. The Hoffman Branch was constructed in 1859 by the Cumberland Coal & Iron Company. A history of the Eckhart Branch is given in Section 3.

A tower marking Eckhart Junction on the main line was at the West end of the Narrows. The Eckhart Branch crossed Wills Creek on a brick arch bridge, which survived until removed in January of 1998. The track and right-of-way of the Eckhart Branch have been removed. The tunnels were destroyed as a result of the construction of Interstate 68 in the 1970s. Certain sections of right-of-way may be seen in the Town of Eckhart, and from I-68 and old Route 40.

Westward beyond the Wills Creek bridge (mile post 2.3) was Lafferty's Siding, and sidings for a Sears warehouse, Feldsteins's Scrap yard, Cumberland Glass, and Boetcherville (Long, Maryland.) siding. At Cumberland Glass, the old Braddock Rye Distillery, the line crossed from the North to the South side of Route 40. The C&P swung south and climbed to cross

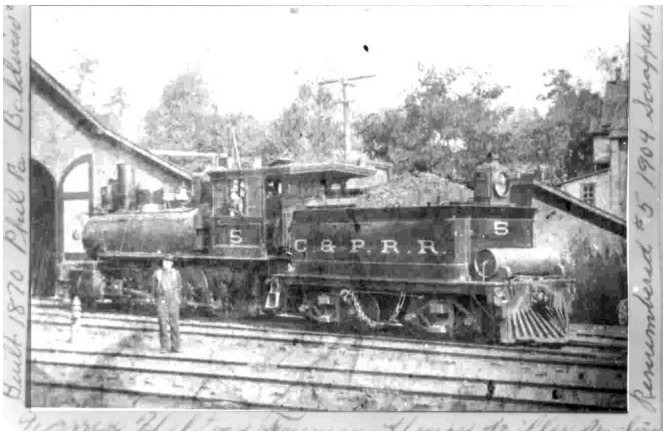


Figure 191 - Engine 5 on the Eckhart Branch, J. G. Farrell collection

Braddock Road at grade, then looped around and

Figure 191 - GC&C Trestle, collection of Western Maryland Railway Historical Society

crossed Winchester Road on a reinforced concrete bridge. When this bridge was removed in the 1970s as part of the Winchester Road widening, the contractor vastly underestimated the extent of C&P's overdesign. The bridge took weeks to remove, being constructed of reinforced concrete, with steel "I" beams on 18" centers. Beyond the C&P bridge, rival Georges Creek and Cumberland Railroad crossed Winchester Road on a wooden trestle.

The C&P continued behind the present Braddock Square Shopping Center, and followed roughly the path of the current Interstate 68. A water tank at Clarysville serviced the thirsty engines. This water tank survived into the 1950's. At Clarysville, the horseshoe curve swung up current Route 55 towards Midland.

At milepost 11.1, the tracks split to Hoffman Junction and the K&M Coal Company, and towards Eckhart. There was a two stall engine house, shops, and a water tank, and Eckhart was the location for Consolidation Mines 3, 4, and 10. The Hoffman line was torn out in 1949. Location of some of the earliest coal transportation on the line, Hoffman Mine No. 3, was once serviced by C&P's iron pot hopper cars. The last motive power on the line was Western Maryland decapods.

The Celanese Branch

There was a proposed extension of the C&P Railroad's Eckhart Branch to the Celanese Plant at Amcelle, between Cumberland and Cresaptown. The plant was served by the Baltimore & Ohio (B&O) rail line, and was a major consumer of coal. It received bulk shipments of industrial chemicals and raw cotton fiber, and shipped out its fabric products in quantity. The B&O also provided passenger service to the plant, for Celanese workers. The plant had its own extensive

networks of rail lines on the property. It became a major employer in Allegany County, and most families in the area have relatives that worked for the plant at its peak. At one time, 13,000 employees worked there.

The American Cellulose and Chemical Manufacturing Co., Ltd, plant was set up during World War I to produce cheaper fabric for airplane manufacturing. The plant location was chosen inland to protect against Zeppelin attacks. It was also sighted in proximity to a ready source of water at the Potomac River, and easy access to coal supplies and railroad lines. After a series of delays, actual production began in 1924 with a series of commercial fabrics and yarns intended as alternatives to silk. Silk was expensive, and the supply came exclusively from the Far East by ship. Raw silk was rushed by special express trains from West Coast ports to eastern factories. The Klott's Throwing Mill (1907-1957) in Lonaconing, served by the C&P, was a silk processing factory. The C&P trains brought in the raw silk by the boxcar load, and shipped the finished fabric to garment factories in Reading, Pennsylvania. A similar factory was located in Cumberland.

The C&P Celanese extension was to have been built from their Eckhart Branch. There would have been a wye south of the C&P's Winchester Road crossing, near Vocke Road. From there, the line would have proceeded south behind the current location of the Country Club Mall, and parallel to Winchester Road (Maryland Route 53). Two crossings of Warrior's Run were required. There would have been a siding before Cresaptown, perhaps a station, and a through-plate girder bridge over the McMullen Highway (US Route 220). At the Celanese Plant, there would have been dual 20-car sidings before the line connected to the existing company tracks. Ample coal supplies would be provided from the Eckhart and Hoffman mines. All of the tonnage traffic would have moved downhill. The line would have been 3.45 miles long, and an easy 1.5% ruling grade for empty hoppers, compared to the 3% grade towards Eckhart.

The C&P Celanese Branch was proposed in 1934, but never built. Perhaps it was opposition from the B&O, or perhaps the line would have been too expensive to justify its construction. The Celanese Plant ended production in 1984, and has been torn down to provide room for a new prison facility.

The State Line Branch

The Bedford & Bridgeport Railroad, later acquired by the Pennsylvania Railroad, completed track to the Maryland State line, near Ellerslie, Maryland, in 1872. The C&P extended to meet it from Kreigbaum. The State Line Branch was completed in 1872 by the Consolidation Coal Company, and ran from Kreigbaum to State Line to connect with the Bedford Division of the Pennsylvania Railroad (PRR). The PRR maintained a yard and shops at State Line. The facilities included a seven stall engine house, a water tower, and coaling facilities. The State Line facilities closed in 1956, and disappeared by the 1980's. The C&P ran on the west side of Wills Creek, along with the B&O. The Western Maryland, operating as the Pennsylvania Railroad in Maryland, ran along the east side. At times, up to 15 trains of coal cars per day were handled at the interchange. The loaded cars were hauled over the Bedford & Bridgeport Railroad, to the Huntington & Broad Top Mountain at Mount Dallas, Pennsylvania. The traffic was hauled by that road to Huntington, and the connection with the PRR main. Then, coal went to the dock at South Amboy, New Jersey.

A highly profitable operation, the H&BTM was an acquisition target of the PRR. When the shareholders declined to sell, the PRR built an alternate line (the Bedford & Hollidaysburg), which strangled the coal lifeline of the H&BTM. The road operated until 1954, and a portion was then operated as the Everett Railroad. The H&BTM ran along the west foot of Broad Top Mountain, following the Raystown Branch of the Juniata River.

Figure 191 - PRR Facilities at State Line, Deane Mellander collection

C&P engines operating in Pennsylvania observed PRR operating rules. The PRR disparaged C&P's wooden coal hoppers, saying they frequently broke under load. Could this have been due to rough handling and high-speed operation for cars designed for the walking speed descent of the Eckhart grade?

The Georges Creek & Cumberland Railroad was formed to provide an alternate outlet for the American Coal Company and the Maryland Coal Company to the PRR. It also provided a direct competition to the Consolidation Coal-owned C&P, with its B&O connections. The GC&C was chartered

Figure 191 - Pennsylvania Railroad in Maryland, west end of the Narrows, collection of William P. Price

on December 21, 1876, and completed laying rail on March 1, 1880, from Cumberland to Lonaconing. The section from State Line to the West end of the Narrows was originally known as the Pennsylvania Railroad in Maryland. This was later merged into the GC&C. These tracks were on the east side of Wills creek, then crossed to the west side at the head of the Narrows. This line later became the initial segment of the Western Maryland's Connellsville Extension. The PRR maintained a freight station in Cumberland, even after the Western Maryland bought the GC&C. The PRR operated passenger service into Cumberland over this line until 1937. Freight service continued with the Penn Central into the 1970s.

The Potomac Wharf Branch

The Potomac Wharf Branch was built by the Maryland Mining Company between 1846 and 1850, as an extension to the Eckhart Branch Railroad. The Potomac Wharf Branch crossed Wills Creek on a bridge (no longer present) just east of the present

Figure 191 – Intermodal - Coal Hoppers and canal boats, Deane Mellander collection.

Route 40 road bridge. Some of the rail may still be seen near some billboards, and a gas station. The area near the creek end of present-day Wills Creek Avenue is known as City Junction, and had a water tank and a control tower. The Potomac Wharf Branch was crossed by the Georges Creek & Cumberland Line. Rail was removed from the section west of the Valley Street crossing as late as 1990. In 1994, rail was removed from this area to maintain the Western Maryland Scenic Railroad, using the ex-GC&C line to Frostburg.

A classic wreck scene photo, circa 1860, shows the bridge collapsed into Wills Creek, with engine C. E. Detmold dangling into the creek. This image indicates the branch and the facility were in use at least to this date. The original Potomac Wharf Branch bridge was a 203-foot deck plate girder structure, with two support pillars in the creek. Built in 1849, and rebuilt after the Detmold accident, it survived until the flood of 1936.

The Potomac Wharf branch carried coal to flat-bottom Potomac River boats, and later to canal boats, before the canal wharf facility was completed. There was a series of canal wharves at Cumberland. The Mount Savage Rail Road reportedly built one in 1850. The 1923 ICC valuation docket for the C&P gives the construction date for the concrete wharf as 1917. The B&O provided access for the C&P to reach the Canal Wharf, charging a tonnage tariff for this access. The later wharves were built south of the Western Maryland station, along the canal basin.

Initially, canal boats could enter the Potomac River through the guard locks, and proceed upriver for some distance. The dam in the Potomac below the guard locks ensured that the Potomac was deeper at its junction with Wills Creek than it is today. The guard locks and the dam were removed as part of the Corps of Engineers Wills Creek flood control project for Cumberland in the 1950s.

The length of the Potomac Wharf branch was

about 0.9 miles. The river terminus was the position where the present Interstate-68 bridge passes over the B&O west end line. From City Junction, where the Wharf Branch crossed Wills Creek, the line proceeded eastward to meet the B&O tracks at the southern end of the B&O viaduct. The Potomac Wharf Branch was built on more of an upward slope than the GC&C, to meet the B&O tracks at viaduct level. It crossed Valley Street, and the south end of today's road bridge, at street level. The B&O line's roadbed is some 20 feet higher than the Western Maryland (Scenic) Line. East of Valley Street, some track and ties were still in place as late as 1994. Looking back from the B&O line, the junction of the Wharf Branch is easily seen.

B&O's Cumberland viaduct was built as a brick arch structure during the period 1849- 1851 by Benjamin Latrobe. The Wharf Branch line and the B&O main passed through the "deep cut". The deep cut provides the "West End'' of the B&O with access to the Potomac River Valley, towards Keyser, and Grafton. The viaduct passes over city streets, Wills Creek, and the Western Maryland tracks (ex-GC&C, now used by the Western Maryland Scenic Railroad). The viaduct is double-tracked, as is the deep cut. The southern end of the cut is wide enough for triple track,

Figure 191 - B&O Viaduct, 2001, Cumberland, Jody Coleman picture.

and the bridges are designed for three tracks. They currently carry the CSX West End tracks. The C&P line merged into the B&O westernmost tracks, then crossed over to the easternmost track.

The wharf siding was about 1000 feet long, extending from the current Kelly Boulevard around to Wills Creek. The details of the facility and the method for loading coal from the rail cars to the canal boats are not known. However, it was probably not as convenient as dumping directly into the boats, as was done with the later Canal Wharf facility. The Potomac Wharf Branch was listed on the C&P valuation sheets in 1918, although it is doubtful it was in use for coal at that time.

Some rail and ties remained between the viaduct and the Valley Street Bridge in 1994, and extended as far west as City Junction. That section of the line east of Valley Street is built on a raised section of land, with a reinforced retaining wall. The connection has been removed from the B&O line, but the location is still visible. The line was used into the 1940s as an industrial siding for the Cumberland Contracting Company, and the City of Cumberland's warehouse at Valley Street.

Before crossing Wills Creek to City Junction, a spur of the Wharf Branch serviced the Wellington Glass Plant. The plant had been acquired from the National Glass Company in 1909, and the buildings burned later that year.

The Main line

The Main Line of the C&P ran from the B&O's Queen City Station in Cumberland by way of Mount Savage and Frostburg, through the Georges Creek coal region, to connect with the Western Maryland at Westernport, Maryland, and across the Potomac to meet the B&O at Piedmont, West Virginia (Virginia, prior to 1862).

The Main line was built from both ends by C&P predecessors, and major portions were completed before the C&P began operating. The line from Mount Savage to Cumberland was opened in 1845 by the Maryland & New York Iron & Coal Company. The Georges Creek Coal & Iron Company finished the line from Lonaconing to Piedmont in 1852. In September of 1856, the line from Mount Savage via Frostburg, and the Lonaconing line were finally joined at Knapp's Meadows, between Midland and Lonaconing.

Westernport and Piedmont, separated by the Potomac River, became a logical target for interconnection with other railroads or the canal. The B&O came to Piedmont, the West Virginia Central and the Piedmont & Cumberland (both later merged into the Western Maryland Railway) came to Westernport, but the canal stopped short at Cumberland. One of the two proposed paths for the canal westward from Cumberland to the Ohio River would have passed through Westernport, but the construction funds had been depleted.

The Mount Savage Iron Company had extended their rail line northward 3 miles from Mount Savage to Borden Yard in 1851. The main line was double tracked from Cumberland to Mount Savage Junction in 1872, and a third track was added in 1902. Travel west on Route 40 through the Narrows from Cumberland, and the old Western Maryland line, now used by the Western Maryland Scenic RR, will be on

your left. The CSX main line across Wills Creek on the right used to be Mount Savage Rail Road, then C&P. The B&O had trackage rights on these lines. The Pennsylvania Railroad came from Bedford near the west end of the Narrows on a bridge, since removed. This would become the Western Maryland State Line Branch, but the PRR once serviced the passenger trade from the original WM station. At the West end of the Narrows, C&P's Eckhart branch split off, and passed under the Western Maryland iron truss bridge, circa 1907. At the east end of the truss bridge, the Georges Creek and Cumberland split off to go through LaVale and Clarysville to Vale Summit and Midland, and join the C&P at Jackson Junction. A paper factory was once located at the West end of the Narrows, in Locust Grove. The brick smokestack can still be seen, as well as the distinctive vertical strata of the 'Devil's Backbone' rock formation.

On the C&P main line, mileages were computed from a zero reference point at the B&O Queen City Station in Cumberland.

This station is no longer in existence, but was located roughly where the present Amtrak passenger station is. Westward about 0.3 miles, there was a freight station at the B&O West Yard, near where the

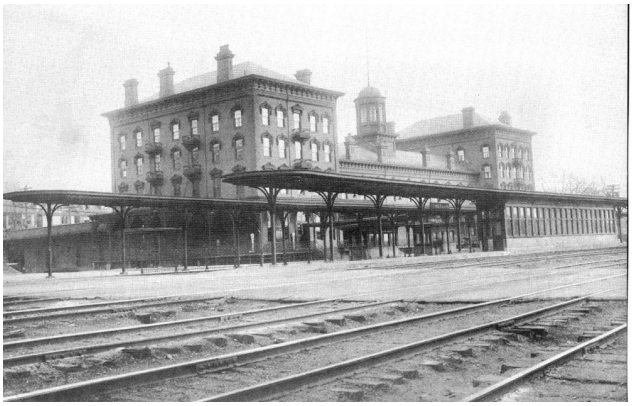


Figure 191 - B&O's Queen City Station, collection of P. H. Stakem

present Frederick Street Bridge crosses the CSX tracks. The B&O and C&P shared a freight station at George Street. At the present Viaduct Junction, where the CSX splits at the previous location of Tower ND, was C&P's Hay St. Station, behind St. Patrick's Church on Center Street. The station no longer stands.

At mile 1.0, which is just west of the intersection of Mechanic and Centre Streets, is the Western Maryland bridge connection to City Junction. The rail connection was at the Pear Street crossing. The bridge over Wills Creek is still present, but not currently used. Across that bridge is City Junction, where the Potomac Wharf Branch crossed the GC&C, later the WM.

Figure 191 - Junction, behind Cumberland Brewing and Wellington Glass, looking east. Collection of William P. Price

At the west end of the Narrows is Eckhart Junction. There was a tower here in past days. Proceeding along Wills Creek is Mount Savage Junction, near the present town of Corriganville, formerly known as Kreigbaum, where a freight station and tower were located.

Figure 191 - Mt. Savage station. Notice the outside braced gondola. William P. Price collection

A little more than 2 miles distant was the water tank at Patterson. In this area, the new alignment of the highway overlays the C&P right of way. A mile further west is Barrellville, which had a passenger station.

A branch line led north to mines at Wellersburg, Pennsylvania. The branch line crossed

Route 36 and Jennings Run on a bridge, since removed. The abutment of the line on the north side of the road is still evident. Across the road from that, concrete steps lead up to the C&P right-of-way.

Mount Savage, operating center of the railroad, is located at milepost 9.4. In Mount Savage were the C&P shops, roundhouse, passenger station, a wye, and the Mount Savage Refractories brickworks. The roundhouse suffered a fire in 1907, and the depot, which resembled the one in Frostburg, was dismantled in 1955.

The shop's turntable was not powered, except by strong arms and backs. There were car shops, a freight house and yards, an oil house, machine and pattern shops, and the office building. The Mount Savage town park is located roughly on the site of the

Figure 191 - Wellersburg line crossing Rt. 36. C&P is on the left. Looking towards Mt. Savage, William P. Price collection.

Figure 191 - Engine 10 plus 3 cars (baggage #26 and two coaches) rolls past Hay Street Station into the Narrows , collection of William P. Price

roundhouse. The Mount Savage coal ramp was used by the Pioneer Coal Corp., the Cumberland Parker Seam Coal Corp., and the Victory Coal Mines. Five additional companies loaded coal by conveyor (circa 1947). Earlier, the shop's coal tipple serviced local needs. When in full use, the Mount Savage blast furnaces required 150 tons of coal per day.

Beyond Mount Savage is Morantown, Allegany (or, Zihlman), and Borden Yard. One mile beyond that is Switch number nine.

Figure 191 - Borden Yard, collection of William P. Price

Allegany had a depot, water tank, and freight shed. Borden Yard also had a station, and was the location for a major brickyard of the Big Savage Refractories. Beyond Switch number nine, the C&P looped over the Western Maryland Connellsville Extension on a pair of bridges, now used by the Western Maryland Scenic Railroad. Frostburg is located at mile 15.6, and once had extensive sidings for freight, and a livestock loading ramp.

Figure 191 - Frostburg Station, looking back towards Mt. Savage, collection of William P. Price.

Through the Frostburg tunnel, the rail line has been removed, and apartment houses encroach on the eastern end of the right-of-way. The C&P crossed Welsh Hill Road at grade, where the road bed is still evident. Beyond that, Interstate 68 cuts the right of way, but the old built-up rail bed can still be seen on either side of the Interstate.

Proceeding down Georges Creek, next comes Wright's Crossing, Midlothian Junction, and Borden Shaft. The line from here to Westernport is still in use for on-demand coal service. In 1991, the Georges Creek subdivision of CSX hauled 195,197 tons eastward over this line. From Midlothian Junction, the

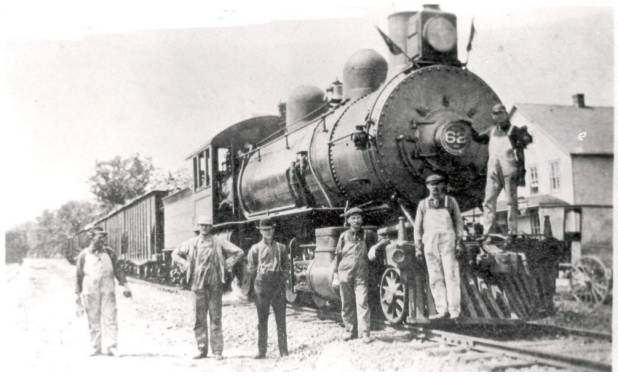


Figure 191 - Engine 63 on Carlos Branch – J. G. Farrell collection

C&P made a connection with a logging railroad. The Juniata Lumber Company (ref. 29) established a circular sawmill in Midlothian, at the end of a 3 foot gauge line that extended 12 miles into Garrett County along Big Savage Mountain. A Class B Climax engine was used to haul the logs. From the sawmill, the lumber was shipped in boxcars over the C&P. Twenty-five thousand board feet per day of railroad ties and dimensioned wood were produced at its peak. The sawmill facility was closed by 1913. A C&P rail spur also served the Bowery Iron Furnace at Midlothian, allowing shipment of pig iron to the B&O rolling mill at Cumberland. Ore from a mine of the Cumberland Coal & Iron Company about 1/2 mile west was used in the furnace from 1874 to 1880.

Further down the line at Carlos Junction, the railroad branched across Georges Creek to serve several mines. Only the bridge abutments remain, and are still visible. A water tank and station were located here, as well as an engine house and a permanently stationed engine. Trains on the Carlos Branch were slow ordered to 8 mph. Five double-block houses, still standing, were owned by the C&P for the use of trainmen.

Next along the main line came the big mines at Ocean, with major mine buildings and ventilators for the shaft and drift tunnels. The mine facility was owned by the Ocean Steamship Coal Company. The

town of Midland had some major rail congestion, with the confluence of the C&P, the GC&C, and the Cumberland and Westernport Electric Railroad (C&WE). The C&P serviced several small local industries at Midland, and maintained a freight house there. The late-comer GC&C crossed through the center of town on a long wooden trestle, removed in the late 1930s.

A minor spur of the C&P was the Neff's Run Branch. Neff's Run is a small creek that follows Maryland Route 55 into Midland from the north, and joins Georges Creek at the town.

Drive down Route 936 south from Frostburg to Midland today, and the C&P right-of-way is to your right. About a mile after you pass under Interstate Route 68, the tracks begin at the Winner Brothers Coal facility. This is the CSXT Georges Creek Sub. Upon entering Midland's town limits on Route 36, the road takes a sharp turn to the left to merge into Route 55. To the left is a whitewashed stone wall, which is the north abutment of the old GC&C trestle. At this point, the Neff's Run branch crossed Georges Creek, then passed under the GC&C trestle, and curved around to continue north again along the alignment of Route 55, towards Vale Summit.

The Neff's Run branch was 1.2 miles long. It ran to the Miller Company Works, probably a coal mine, with double tracking at the end, and a load house. The line made at least 6 crossings of Neff's Run in a mile. The line appears on the original map showing the extension of the C&P southward from Frostburg to meet the Georges Creek Rail Road at Lonaconing. It appears to have been built at the same time as this section of main line, around 1856. It is still shown on a 1918 C&P map, but is gone without a trace on later maps. The exact date of abandonment and removal is unknown. No trace of this branch can currently be found.

Proceeding southward along Route 36 from Midland and paralleling the tracks, we come to Gilmore, where a large tannery was once located. This is where the GC&C had a turntable. Next we come to Lonaconing Junction, followed by Knapp's Meadow, where the GC&C line crossed over on a tall steel trestle. A C&P connection with the GC&C was at Jackson Junction. Driving down Route 36 from Midland to Lonaconing, the C&P line, now CSX, is on the right. The Georges Creek and Cumberland line was on the left. The GC&C bridge abutment crossing a creek to the right can still be seen. Near Jackson Junction, just past the grade crossing, was a section house where the GC&C and C&P intersected. The rail line now runs to the left of Route 36, as we proceed eastward.

At Water Cliff, before Lonaconing, there was a water tank, served by Water Station Run. This was the former location of the facilities of the Georges Creek Rail Road. Present day Water Cliff Road branches off State Route 36, just before the exit for Dans Mountain State Park. On the road to Dans Mountain State Park, off Rt. 36 north of Lonaconing, the base of the water tank can be found. Lonaconing sported a passenger and a freight station, and several local industries including a bakery, brewery, and a glass works. The first industry served was the Iron Furnace, located in the City Park. Across Georges Creek are the rail lines, and the silk factory, Klott's Throwing Mill (1906-1957), abandoned, but frozen in time. It had its own siding, with raw silk arriving in boxcars, and finished silk thread being shipped out to fabric mills in the area of Reading, Pennsylvania. A glass factory (circa 1920) stood across from the silk mill, but burned, and no trace remains. The GC&C serviced the passenger trade in Lonaconing from a station on the hill above the furnace. Sections of the right of way and rail bed still remain in that area.

Beyond this point, the line was built as part of the Georges Creek Coal & Iron's railroad, discussed previously The railroad proceeds through a litany of small towns past Lonaconing. These won't be seen from the new road beyond Lonaconing, but keep to

Figure 191 - Silk Mill, P. H. Stakem photo

the right at the grade crossing beyond Lonaconing, and use the old road to pass through Detmold, Pekin, Moscow, Dawson, Barton, Morrisons, Phoenix, Lauder, and Gannon. Pekin was the site of a mine tipple. Barton sported a station, and a siding for the Swanton mine. There was another siding at Phoenix. Gannon was the site of a bridge collapse in 1887 that sent C&P engine 28 into Georges Creek.

Figure 191 - Engine 13 at Kreigbaum hauls freight to Mt. Savage, collection of William P. Price

The rail line then crosses Route 36 again, before Franklin. Engine shops and a wye were once located at Franklin, although nothing now remains. Next comes Westernport, and the intersection with the Western Maryland Railway. C&P's Westernport shops were damaged by flood in 1884, and burned in 1922. They were not replaced. The WM station at Westernport is preserved as a museum.

The C&P then crossed the Potomac on a bridge for it's west-end connection with the B&O at Piedmont, West Virginia. A tower was located at the Maryland side of the bridge, long occupied by Mr. Wills. C&P trains sometimes made the run to Keyser yards, 5 miles further along the south side of the Potomac, under B&O operating rules. Piedmont was the location of a C&P Station, the first floor of which still exists today on the CSX West End main line. The station was transferred to the Town of Piedmont by CSX Corporation, and is being restored as a museum.

Figure 191 - Mt. Savage brick yards dinky engine, P. H. Stakem collection

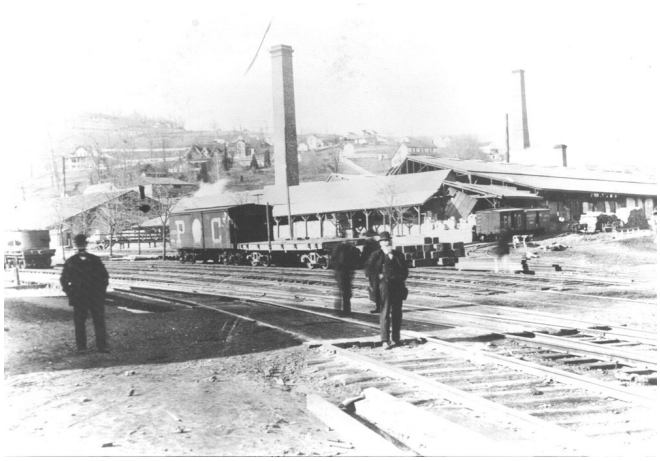


Figure 191 - Brickyards at Mt. Savage, William P. Price collection.

Figure 191 - Engine 21 on turntable, J. G. Farrell collection

9. The people of the C&P

A railroad is more than a list of equipment. Like any business, its most valuable asset is its people. This section focuses on the people who built and operated the railroad, and conducted its business on a day to day basis. It includes material from interviews with retired employees.

The C&P employed 251 at the end of 1941, when it was first organized into union labor. We can only discuss a few of these.

Claude L. Ward (1879 – 1953) , C&P Engineer

My maternal grandfather, "Jake" Ward was an engineer for the C&P. He worked on the Eckhart Branch, and retired at the end of World War II, before the Western Maryland takeover. He had started out on the Carlos Branch, and lived in company housing. My mother was born in one of the C&P houses in National, Maryland. Later, they moved to Eckhart. Jake worked his way up through the ranks, and raised a family. His wife always made sure he left for work with an ironed shirt, clean overalls, and a full lunch box. He would bring penny candy treats home from Cumberland for my mother, and her sisters and brothers. He married Elizabeth Mullen on March 13, 1902, at the Centre St. Methodist Church in Cumberland.

Supposedly, his father was involved in the accident where engine 28 went off the bridge at Gannon on the way to Midland, and landed in the mud. There were injuries, and, as part of the settlement, his son got a job on the railroad. He served on Eckhart Branch of C&P for 49 years.

I don't remember much about him, because he

Figure 191 – Claude L. (Jake) Ward (left) & crew, collection of the Western Maryland Railway Historical Society. Picture taken Aug 12, 1942 L-R Ward; Francis Dickle, Fireman; Annon Price, Brakeman; Calvin Arnold, Conductor; Allen Stewart, Brakeman.

Figure 191 - Shops crew, Deane Mellander collection

died when I was very young. Gaunt, he smoked cigars, and had a cellar full of railroad oil cans and lanterns. He got to celebrate his 50th wedding anniversary at home. The picture of him and his crew show a proud group.

I remember his story of the night on the Eckhart Branch when the engine hit something, and they dumped the air and ground to a halt. The fireman went back to check, and came back white as a sheet. Seems that a hobo had too much to drink, and fell asleep on the tracks. He was decapitated. Granddad said he went back and got the head in his bandana. True story, or embellished? I don't know. He told me the unfortunate fellow still walks the Eckhart Branch, looking for his missing head.

Mike Passarel, trackman

Mike is a retired C&P Trackman, and was third generation C&P. His grandfather, Charlie Eisel, was also a trackman. Charlie's son-in-law was a superintendent on the Eckhart Branch, and hired Mike at age 14. He worked for twenty-five cents per hour on the track gang. One of his jobs in the winter was to walk down the Eckhart branch, sweeping the snow from the switches. He caught the train back up from Cumberland. Continuing the railroad tradition, Mike has two sons who work for CSX.

Mike saved all his pay stubs from the C&P, and has a history of his pay rates and deductions. He also has some tools from the shops. He made the transition to the Western Maryland, and worked at Maryland Junction, before retiring. He trained at the B&O shops, and learned to set up the valves properly on steam engines.

He remembers painting the ceiling of the C&P shops in Mount Savage. They did it at night, so as not to disturb the ongoing work. He remembers tearing out the stub line in Clarysville that had served the Cumberland & Westernport Electric's powerhouse. He participated in the move from Mount Savage to Maryland Junction, and moved the offices from the

Cumberland Cloak & Suit Building in Cumberland to the Western Maryland Station. He hauled records to be burned, and truck loads of asbestos to be buried. Mike gets out of breath very easily, the result of inhaling asbestos over the years.

Mike worked his way up through the ranks in many job areas. There was no formal training, but you learned the job you were assigned from the old hands. If they liked you, you learned the job. If they didn't like you, you could wind up being killed or injured, according to Mike.

John Roy Lynch

When I talked to Roy Lynch, I was struck by the clarity with which he remembered events of more than 75 years ago, as if they had happened yesterday. He told of reporting to work on the Eckhart Branch on November 7, 1917, at 4 p.m. He went from Mount Savage to Frostburg on the train, then walked to Eckhart. He helped to make up a coal train, then worked it to Cumberland. Lynch was 15 years old at the time. He knew the dock boss, Red Cohen, at the Canal Wharf. Roy still works the trains on the Eckhart Branch, from his room in the Cumberland Nursing Home. Highball, Roy.

The Arnolds on the C&P, by Richard Arnold

The Arnold family supplied many workers to the C&P over the generations. Richard Arnold continued the railroad tradition with work as a conductor on the Western Maryland Scenic. His keen insight into shop practices results from his hands-on machine shop experience. He built an operating scale steam engine with his father. He relates,

"C&P cabooses No. 33 and 34 (the 8-wheel cabooses) must have been the old coaches that were passed around the crews before cabooses 125-144 were built. My Grandfather (i.e., Daniel Herbert Arnold, 1882-1963) said one car (No. 125) came from a different builder, possibly South Baltimore (Car Works), since the cabs look identical (almost) to WM cabs. He also said the wash basins were made from old headlight reflectors, as you could see where the holes were filled and soldered over. This leads me to believe, as the diagram book says, that the cars (at least 126-144) were built at Mount Savage. No. 125 was assigned to Grandfather when he worked at Carlos Junction. The large replacers (re-railers) on the side of 125 came from the B&O after a derailment between Piedmont and Keyser, when they took trains to Keyser Yards. C&P replacers were designed for lighter rail. One night while getting water and coal at Keyser, the B&O Trainmaster asked him to help a B&O passenger train to Piedmont where a B&O helper would be waiting. So, a C&P class L and cab No. 125 coupled on at Keyser for a short helper turn, being given a clear track back to get their empties. He was questioned about this unusual job, and answered. "when on a foreign road, you are subject to their orders." So a temporary B&O power shortage was solved with Mount Savage motive power. "

"When coal moved to Cumberland from the Georges Creek, a helper (pusher) engine was used to Frostburg. This is the reason for the steel draft sills on cabs assigned to that run. Only caboose No. 125 had an air gauge, as Granddad swiped that gauge from the roundhouse."

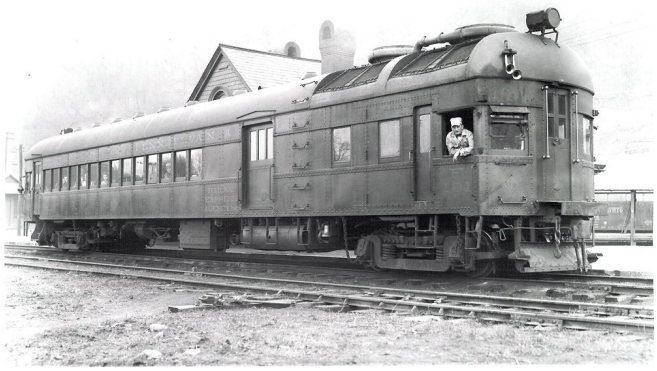


Figure 191 - C&P car 101, with Arnold as Conductor, Deane Mellander collection

"Cabooses were often stopped where they could be drifted back on the train after a switching move or onto the cab track as the train was pulled into the yards. One night at Carlos Junction, the man who was to drop the caboose missed it and it ran into the other cars, breaking a journal pedestal. A new one came over from Mount Savage on the passenger train and the caboose was ready that evening. The No. 125 was mashed up against the wall at the back of the foundry in Mount Savage, probably after grandfather went off to fight in World War II in 1942."

"He was offered No. 125 but couldn't move it so it was scrapped. His next caboose ran away out of Mount Savage, as the brakeman who lived next to the storage track was cleaning and moving it. I remember seeing it drifting alone down the track. It went over the derail behind the Masonic Building (the present one) and upset. Next came the crane and tool car with a locomotive, and in a short time they came back past the house with a slightly out-of-square caboose on the rear. The number of this cab or the next are unknown to me, but his next caboose was WM No. 1802. He loved 125 but 1802 was his favorite. As a young boy, I can remember these cars setting next to the back road in Mount Savage where the new fire company is now. Grandfather had Dad bore the holes in the doors

for the deadbolts. Uncle Cal's car was coupled to 1802 this day. While dropping this car back onto the train at Frostburg, the brakeman released the brake on one end, and walked through to the other end where the brake chain was unhooked. The car rammed the train, tearing the desk loose and breaking several windows. It was returned to the car shop after one trip. The reason - someone carelessly forgot the pin in the brake chain."

"After the track from Mount Savage to Mount Savage Junction was removed, the branch was worked from Frostburg. The brickyard at Allegany was

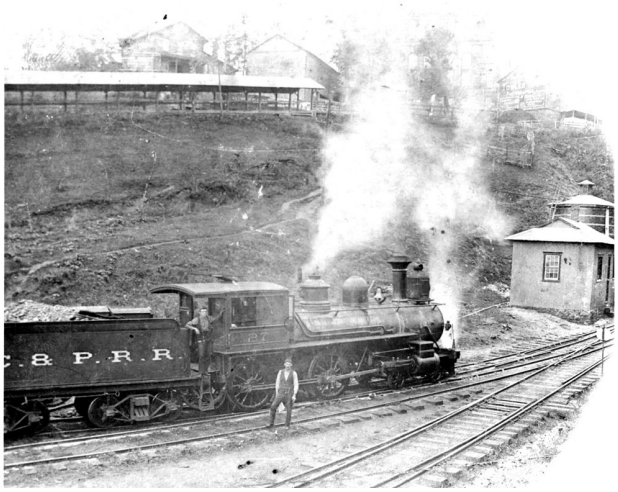


Figure 191 - Engine 27 at Frostburg, collection of J. G. Farrell

switched, and the cab and loads would be left there while the crew rode the engine to Mount Savage to switch, as the grade is steep. The train would be combined again at Allegany."

"When C&P crews worked out of South Cumberland (circa 1900-1910), they would typically get ice from the B&O. The B&O men would be given the last 3 digits of the car and cab, so the C&P men would just say "125" or whatever for free ice. The first cushions in Granddad's car were made by Grandmother, with the crew sharing the cost of the materials."

"Grandfather started in train service in 1900. He quit the track gang working for August Arnold, his father. August Arnold (1857-1936) started railroading for the B&O as timekeeper and assistant to a German section foreman who couldn't read or write English. His section included the Narrows. By ordering all supplies and doing all the written work, he learned his trade. In the meantime, Daniel Herbert Arnold (1882-1963), the second of 8 sons and 2 daughters, was born. He grew up in Cumberland's North End and attended Centre Street School before moving to Frostburg. Great Uncle Dan, his namesake, had a bake shop on the corner of Mechanic and Valley Streets, now a parking lot. As a young boy, watching a B&O camel switching, he thought, "I wish I could see it jump the track." It then did. He was so frightened, he ran home and hid. Today it would be illegal for children to work so young, but Grandfather helped deliver groceries by horse and wagon. He was taken on several occasions to the gambling establishment on Lover's Leap by the son of the grocer, with further deliveries that day suffering. On one occasion, a game was broken up when a snake dropped from a tree onto one of the players."

"By 1890, August was hired by the C&P, and moved to Frostburg. The family was transported by the regular morning passenger train, with all its belongings in a railroad car, pulled by No. 27, the 4-4-0 engine.

They lived down the road from the station. D. H. now attended Beall Elementary School. At age 12, in 1894, he was driving a horse (also named Dan), at Keely Mine, where his older brother Adam was the scale man. Grandfather was upset because Dan the horse was being worked 2 shifts. He drove nights. At this time, great uncle Dan moved in with the family. He had TB, and was nursed by Mary Elizabeth, his sole surviving sister. Uncle Dan died, but not before Mary contracted his sickness. Grandfather and Mary were very close. On her deathbed in 1896, she had him promise to leave the mine, for health and safety reasons. He returned to school full time, and finished 8th grade. Then, he started railroading on his father's section gang. All 8 sons started there. August was tough, a champion cusser, he chewed tobacco and drank, but not to excess. He probably couldn't pass modern tests. One morning Grandfather said, "Pap, I'm not going out today because my toe is mashed bad from a dropped rail yesterday." Pap says, "Come on out, I'll give you a different job today." He was made water boy, carrying water 2 miles with a mashed toe - the good old days before workmen's compensation."

"The section gangs broke larger stone into ballast size as track was resurfaced. A switch point was carried when replacing rail. When a train was due, rather than cut the rail, the point was used so the rails could overlap. The track was elevated slightly before a curve to help start the train into the curve."

"The year 1900 began with over 50 years of Arnold train service. Until 1903, there were no cabooses, only one or two cars, old, short coaches that were passed around. Crews rode the tops in warm weather and the end sills in winter, burning old journal packing to keep from freezing. When cabooses arrived, Dan was made rear brakeman (parlor man) by Captain Whitefield because he was a good cook. This became a close relationship which caused some

friction. Once, after a train had been lined up with a tipple to be switched, one brakeman (after Captain Whitefield had left for the mine office) was very critical. He wanted to shove straight through the tipple with empties and loads onto the main, referring to the Captain as a dumb old S.O.B. Grandfather spoke up, saying he might be old but he wasn't dumb enough to shove the empty high coke rack cars through the low tipple. The head brakeman (Adam Zais) got the nickname of CokeRack on the spot."

"After the USRA interlude, the B&O started charging the C&P $25.00 to turn each engine at Cumberland. To counter this, the C&P turned every engine at Mount Savage, all engines backing to Cumberland. The passenger train was stopped above the roundhouse, and the engine was uncoupled and turned. If it was night, the lights went out, because power came from the locomotive's steam generator. There were no batteries on the cars. The engine would recouple and back into the station."

"A lot of coal went to the Pennsylvania Railroad at State Line. They wanted to use 70-ton hoppers, but the C&P was steep and curvy, especially the Eckhart Branch. A very slow speed was set, but in spite of this a large derailment happened on the horseshoe curve at Clarysville. Uncle Cal was the conductor, and was worried he would be blamed. The cause of the wreck was blamed on the use of 70-ton cars, and 55-ton cars were used exclusively after this. Off this branch at the Toll Gate (in LaVale), a spur went down into a mine. Fireman J. Farrell once had his arm broken by being thrown from the train here."

<u>Assignments of Dan Arnold on C&P</u>

Mount Savage - 1900 - flagman
Cumberland - 1904
Westernport - 1905 - brakeman
Carlos Jct. - 1909 - conductor
bumped to Mount Savage - 1911 for 6 months
assigned for a total of 9 years to Carlos
Carlos Jct. - 1912
Mount Savage - 1919
Westernport - 1938-1942, passenger service
Mount Savage - 1942 – crews moved to Ridgeley after WM takeover

"Dan started flagging in 1900 at Mount Savage. Soon crews and engines were moved to South Cumberland. C&P engines with B&O crews ran weekends to Brunswick. The B&O wasn't financially strong at this time, and was looking to save costs. He worked at Westernport (Piedmont) in 1905 as a brakeman. In 1909, he bid a conductor job at Carlos Junction. He left a nice house with a bath and a furnace for a company house with only cold running water and an outhouse. Molly Ritter, who owned Ritter's Tavern and Service Station on the West Side, gave Grandfather a tub they had. This tub was placed in the summer kitchen, and you carried your own hot water. This could only be used in warm weather. The house was heated by a coal-fired kitchen stove. Grandfather would throw off coal from the train, coming from Mine No. 7. My Aunt, now 91, can remember her father going to work at 4 P.M., his first job at Carlos being the miner's train. She didn't see the train going up, but saw it returning many times. The miners worked 10-hour shifts. The train was usually about 12 cars, and she and her older sister would watch for their father, and exchange waves. The train must have gone to Westernport, as all the miners didn't live at Carlos."

"He was bumped to Mount Savage in 1911 for 6 months, then came back to Carlos in 1912 to another cold house. Carlos had an engine house and 2 engines. Grandfather mostly left here after dark with loads for the B&O at Keyser. Trains were to stop at Barton to cool wheels and brakes. One cold rainy night they didn't stop, and subsequently broke a wheel."

"In 1919, he moved to Mount Savage for approximately 19 years. During this time, he was once a conductor on a Consolidation Coal Company Passenger special. The train was large enough to require 2 engines to go to Thomas, West Virginia, on the WM railway. C&P engines and cars were used for the entire trip, with a WM pilot. He also worked the local. That engine had a washer put on the post that holds the whistle to change its tone, so it could be distinguished from other locomotives. The shop men would remove the washer at every boiler wash, but it kept finding its way back into the whistle."

"One cold rainy night, he called the dispatcher after working a mine near Lonaconing and was given another job. At Knapps Meadow, 18 hoppers were on the ground in the siding. The outside rail had rolled over due to rotten ties. After a survey of the situation, he got his crew together with a replacer and a short piece of rail. The outside wheels were in the web of the overturned rail, the other wheels were on the ties. The replacer was set ahead of the first derailed truck as far as possible, and the kick rail was angled into it. Grandfather spiked this in himself, as he was strong, and used to wielding a spike maul. The engine was coupled onto the cars that were not derailed. The engineer was told, "Once you get going, don't stop until we signal." Surprisingly, almost all of the wheels

jumped back on except the last truck, which knocked out the kick rail and replacer. The same procedure was used again, and the last truck went on. Three hours had elapsed and another call was made to the dispatcher. He told Grandfather he was surprised as two other crews said the wreck crew would be needed. His theory was "fix it, or fix it so no one can fix it." He always tried, and he worked hard, but he was neat, and didn't get dirty like most people."

"The (WM) I-1's would only handle one more car than C&P class L's, and weren't well liked. They operated with 160 psi as compared to 200 psi steam for the L's. They would derail easily when braking on curves unless a rail washer was used to lubricate the rail a bit. The H7b's were much better. When coming up the new line, he often shoved a Frostburg car ahead of the engine to save switching moves. I can still see his C&P turn sandwiched between two WM 3-engine freights. This view was from the 6th grade school window in Mount Savage. My teacher didn't like my train watching, but I rarely missed one."

"One evening on the C&P track 1 mile below Mount Savage, Dad & I witnessed (WM diesel) No. 75, the replacement for steam engine 763 or 756, going along at a crawl. It smelled like burning insulation. The Mount Savage fire company put out the blaze. The engine crew wasn't held responsible because they weren't trained on this little 600 h.p. GE. Grandfather had retired the year before, so I got more rides. I would ride my bicycle 1 mile to Mount Savage and ride the H7s while they switched, and then ride home. The engineer Stanley Uhl always blew for our house, and Grandfather waved."

"The first trip from Ridgeley, the C&P men got their train together and switched out their caboose. They didn't know that the switching crew on the WM was supposed to do this. The switch crew time carded (reported) them. After C&P crews started using WM engines and cabooses, B&O crossing watchmen wouldn't flag the crossings because of bad feelings from the 1922 strike, and other strikes where WM worked. These feelings continued on into the Chessie era."

"B&O pusher crews would shove a WM man by a signal sometimes buckling the train. Units sent to the B&O wheel truer at the shops often came back with the cab used as a toilet."

"My Grandfather Barth was wreckmaster on the C&P. After the 1922 strike, they were asked to help with a WM wreck in the cut above Mount Savage. The crew said they wouldn't go unless directly ordered - Mr. Claus respected their wishes. During the depression, many of the older wooden cars and coaches were stacked and burned. The steel and iron scrap was loaded and sent to Japan. Grandfather Barth was right when he predicted they would give it back before too long."

"Robert Calvin Arnold was never promoted to conductor, as his memory failed him. He was an extra pass trainman at Westernport, and brakeman at Eckhart. He was a kind man."

"The only time he was ever concerned about a locomotive was when riding an I-1. Coming up the new line, one injector wouldn't hold, and the other couldn't quite keep up alone. The water was in the bottom of the glass, but the crew didn't want to stop because the closing of the throttle would make the water level drop. The speed was reduced, and the second injector was being worked as much as possible until the water level was safer."

Accidents/Injuries

"A brakeman wearing a ring but no gloves lost a finger in a freak accident. While dropping from an old wooden car, his ring caught on a bolt head, tearing his finger off. He went screaming up the track where another crew man grabbed and held him so he wouldn't be hit by the train. The man was crazed by pain. Another time a barrel of quicklime broke open and burned one man. Valve oil was quickly applied, and more severe injury was averted. At Corriganville (Ford's Crossing), a young boy playing on the tracks had both legs cut off. But, tourniquets were fashioned and the boy lived to an old age, and walked with two artificial limbs and no cane."

C&P Engines named for people:

If you were of sufficient importance to the railroad, you would wind up with an engine named after you. Here is the list of some C&P VIP's:

John Galloway Lynn (4/3/1870- ?)
A Cumberland businessman, he built the Lynn Wharf, along the Potomac River at Cumberland. His heirs sold this to the Maryland Mining Company.

A.H. Stump – President of the Georges Creek Coal & Iron Company, 1884. Served as a pall-bearer for Johns Hopkins.

William Borden
He was president of the Borden Mining Co., circa 1875. The Borden Family was from New York. They had founded the industrial town of Fall River, Massachusetts, outside of Boston.

Warren Delano
He was the maternal grandfather and namesake of

Franklin Delano Roosevelt, a Director of the Consolidation Coal Co. 1864-1875, and a Director of the C&P.

Enoch Pratt (9/10/1808-9/17/1896)
Capitalist, friend of Andrew Carnegie. He was born in Massachusetts, and learned iron making. He arrived in Baltimore in 1831 with $150, and went on to make his fortune. E. Pratt & Brothers, 23-25 S. Charles St., Baltimore. Maryland Steamboat Co., Director, Susquehanna Canal Co., 27 years. Vice-President of Philadelphia, Wilmington, & Baltimore Railroad, director of three other Railroads. He built and donated a public library system to the City of Baltimore.

Christian Edward Detmold, (2/2/1810-7/2/1887)
A major figure in the Lonaconing Iron Furnace. A civil engineer by training, he born in Hanover, Germany. Detmold had entered the U.S. at age 16, en route to Brazil to join the Army, but decided to stay instead. He did surveys for a railroad in Charleston, S.C., won a $500. prize for a horse treadmill car from the Charleston & Hamburg Railroad & Canal Co., and worked for the U.S. War Department on the construction of Fort Sumpter.

From 1845 to 1852, Detmold was involved in iron production at Lonaconing. He was responsible for the construction of the tram road in 1847 from Lonaconing to Clarysville. (Sometimes referred to as the Detmold Tramway, or Detmold Railroad). This line connected with the Eckhart Branch Railroad, constructed by the Maryland Mining Company. Detmold leased the furnace, overhauled the boilers, and rebuilt the engine house. The furnace went back into blast in May 1846, and Detmold had a flourishing business by 1847. He was producing 2,500 tons of pig iron annually. The Georges Creek company, perhaps jealous of his success, declined to renew his lease. He moved on to direct construction of the Exhibit of Industry, at the Crystal Palace in New York. This opened in July 1853. C. E. Detmold is remembered by having both a town, and a C&P engine named after him.

M. B. Bramhall - no information known

Albert C. Green
A Director of the C&O Canal Co., and an outspoken superintendent of Borden Mining Co.

Who's Who on the C&P

Name	date, location,	position
Albridge, John		Engineer
Albridge, Wm.	1872	Engineer
Arnold, Calvin	1910	Brakeman
Arnold, Calvin	1940-1943, Eckhart	Conductor
Baker, Chas.	1903	Mt. Savage shop
Barnard, James	1872	fireman
Barth, Herb	1903	Mt. Savage shop
Beachley, Chas. E.	1937 New York,	Sec/Treas
Beall, Lou		Brakeman
Beall, Lou	1890's	Conductor
Best, Fred	1903	Mt. Savage shop
Bostetter, Dr. H.J.	1927 Mt. Savage Co.	Physician
Bothwell., Carney		Westernport
Brant, Grant		Brakeman
Brant, Grant	1910	Conductor
Bridges, Dan	1913	Brakeman
Bruick, Henry T	1892 Mt. Savage	Supt. Motive Power
Burns, W.F.	1884 Baltimore	Director
Burwell, P.L.	1884 Cumberland	Res. Agent
Butt, Jack	1880	Engineer
Butts, John	1870	Engineer
Carney, Jack	1903	Mt. Savage shop
Carter, E.J.	1943	Conductor
Chisholm, Abram	1943	Brakeman
Clark, A.J.	1872	Brakeman
Clark, J.W.	1872	Fireman
Claus, William	1937-1940 Cumberland	Gen. Mgr.
Claus, William	1927 Cumberland	Eng. M. O W.
Coleman, John	1872	Brakeman
Conaway, F.		Brakeman
Cosgrove, Mike	1923	Engineer
Deffenbaugh, Von		Engineer
Delano, Warren		Director
DeRose, Edward	1884 New York	Director
Derwick, Harry	1903 Mt. Savage	shop
Dickle, Francis	1940 Eckhart	Fireman
Dixon, Edwin T.	1937 Cumberland	Auditor
Donnell, Wm.	1884 Baltimore	Director
Dougherty, J.J.	1927-1940 Cumberland	Dispatcher
Dulaney, John	1927 Mt. Savage	Supt. Motive Power
Ellioy, Sam	1903 Mt. Savage	shop
Ewald, William	1890-91 Mt. Savage	shop
Foreman Farrell, Gerald	Mt. Savage Road Foreman Eng	
Farrell, Gerald	1916 Mt. Savage	Engineer
Farrell, Gerald	1943 Mt. Savage	Fireman
Farrell, John M.	1912	Engineer
Fazenbaker, Conrad	1983	Piemont
Fazenbaker, Osborn1	1907-30 Westenrport	Engineer
Fisher, A.C.	1927-1940 Cumberland	Chief Train Dispatcher
Fisher, George	1912	Brakeman
Flynn, Robert	1925	Conductor
Forbes, John M.	1853	Director
Frankl, John M.	1917	Engineer
Frick, W.F.	1884 Baltimore	Director

Garrett, Robert 1884 Baltimore Director
Graham, John 1853 President
Gregg, John 1884 Baltimore Director
Groter, John 1943 Flagman
Gunning, James 1872 Conductor
Hanks, William L. 1872 Mt. Savage Engineer
Harden, William (Capt) Mt. Savage Conductor
Hause, Perry Fireman Hill, Carl 1923 Fireman
Hill, Robert C. 1937-1941 New York President
Hogan, Thomas 1874 Engineer
Hotchkiss, Richard 1943 Engineer
Hoven, John 1872 Conductor
Howson, N.W. 1884 Mt. Savage Master Of Mach.
Hughes, Peter 1943 Brakeman
Jeffries, Jethro 1925 Flagman
Johnson, Walter 1942 Fireman
Jordon, Wm. 1872 Master Mechanic
Kalbaugh, Dr. Z.T. 1927 Piedmont Co. Physician
Kelley, James 1872
Kenah, H.J. 1884 Master of Transport.
Kerns, Buzz Cumberland
Klein, C.W. 1884 Sec/Treas
Koon, Dr. Thomas W. 1927 Cumberland Medical Examiner
Kratz, George W. 1937 New York Controller
Lamb, Charles 1917 Fireman
Lashley, Robert 1925 Brakeman
Lemmert, Arthur 1910 Fireman
Lemmert, Arthur 1942 Engineer
Liller, Everett 1912 Fireman
Lynch, John Cumberland
Malloy, John 1903 Mt. Savage shop
Malloy, Tom 1903 Mt. Savage shop
Mayer, Charles F. 1870-1884 President
McConnel, Wm 1933 Supervisor
McIntosh, James 1872 Brakeman
McMillian, Chas. Brakeman
McNeine, Chas. 1903 Mt. Savage shop
Millholland, James 1861 Mt. Savage Supt. Motive Power
Miller, D.H. 1884 Baltimore Director
Miller, Henry 1903 Mt. Savage shop
Miller, Thomas 1925 Engineer
Misllon, W. Fireman
Moran, Thomas 1874 Fireman
Moran, Thomas 1937-1940 Mt. Savage Gen. Foreman
Mullan, B.V. 1927 Cumberland Xtra Train Dispatch
Mullan, B.V. 1940 Cumberland Train Dispatch
Mullen, W. 1934 Fireman
Murray, Dr. F.A.G. 1927 Cumberland Co. Physician
Naughton, James 1913 Fireman
Naughton, Frank E. 1937-1940 Cumberland Trainmaster
Neader, George 1903 Mt. Savage shop
Nearly, Michael 1872 Fireman
Nisl, Clarence O. 1925 Fireman
Norris, Ernest 1910 Brakeman

Passarel, Mike 1933 Frostburg trackman
Patrick, Herbert Fireman
Paul, Thomas H. 1854-1855 Mt. Savage Master Mechanic
Price, Annan 1940 Eckhart Brakeman
Reynolds, F.P. 1910 Engineer
Richards, 1872 VP
Robertson, J.T. 1927 Cumberland Gen Mgr
Seckman, Jack Westernport
Shaffer, Charles 1912 Westernport Engineer
Slack, C. 1872 Supt.
Sloan, Jr., James 1884 Baltimore Director
Smith, Frank 1903 Mt. Savage shop
Snider, J. Noble 1937-1941 New York VP
Stewart, Allen Brakeman
Taylor, John Yardmaster
Taylor, Sam 1943 Engineer
Tennent, Sandy 1872
Tiley, R.R. 1937-1940 Cumberland Engr. M of W
Uhl, Henry 1903 Mt. Savage shop
Uhl, Stanley Westernport
Varnum, Joseph B. 1853 Director
Waggle, Jas. 1870 + Fireman
Walsh, Owne Westernport
Ward, C.L. (Jake) 1910-1955 Eckhart Engineer
Ward, George 1872 Engineer
Warren, G.B. 1884 Troy, N.Y. Director
Weagle, James 1880 Fireman
Whitewright, William 1884 New York Director
Whitfield, Walter 1944 Westernport Fireman
Williams, T.P.
Wilts, Ed Engineer
Winer, Web 1912 Conductor
Winslow, John F. 1853 Director
Wright, M.C. 1927 Cumberland Dispatcher
Zais, Adam Westernport

Georges Creek & Cumberland

Conductor on the first passenger train out of Cumberland on July 11, 1881 was W.H. Wharton, ex-brakeman for the C&P. Promotions came slowly on the C&P, and experienced staff could be recruited by the promise of instant promotion. In 1884, the Road Master was A.F. Seeley, the Chief Engineer was J.P. Gaffney, and the Master of Transportation was E.A. Marsen. All were based out of Cumberland.

GC&C Who's Who

Figure 191 – GC&C shop crew, WMRHS collection

Figure 191 – GC&C locomotive on Roundhouse turntable, WMRHS collection

James H. Percy	1879	Cumberland	donated right-of-way
Henry Loveridge	1879-81	Pres, Md. Coal	
Gardner P. Lloyd	1879	vp, treas, pres Am Coal	
James A. Millholland	1881-1884	Cumberland	General Manager
James A. Millholland	Cumberland		President
W. H. Wharton	1881	Cumberland	Conductor
Angus McAtee	1881	Cumberland	Brakeman
Thomas Lowry	1881	Cumberland	Engineer
M. Welsh	1881	Cumberland	Fireman
Hughes	1894	Cumberland	Conductor
B.F. Bush	1907	Baltimore	President
Henry E. Cooper	1907	NY	Director
Frederick T. Gates	1907	Montclair, NJ	Director
George J. Gould	1907	Lakewood, NY	Director
Lawrence Green	1907	NY	Director
Alvin W. Krech	1907	NY	Director
Winslow S. Pierce	1907	Bayview, LI, NY	Director
Jas A. Alexander	1884	NY	Director
Alex. M. White NY	1884		Director
George L. Kingslan	1884	NY	Director
Sidney Wintringham	1884	NY	Director
George P. Bangs	1884	Boston	Director
Wm. de L. Walbridge	1884	NY	Secretary
A. F. Seeley	1884	Cumberland	Roadmaster
J.P. Gaffney	1884	Cumberland	Chief Engineer
E. A. Marsan	1884	Cumberland	Master of Transportation

10. What's left

This is a current (2002) snapshot of remaining C&P structures.

Crossing Sign – there are several known cast iron C&P crossing signs. Two have been restored by the Westernport Railway Museum, and guard the CSX track crossing. The signs at Barton, and Midland were removed in 2002. Some are in private collections. The signs weigh 650 pounds.

Figure 191 – Crossing sign at Barton, Patrick H. Stakem photo.

Office and shop buildings at Mount Savage, still in use in 2002

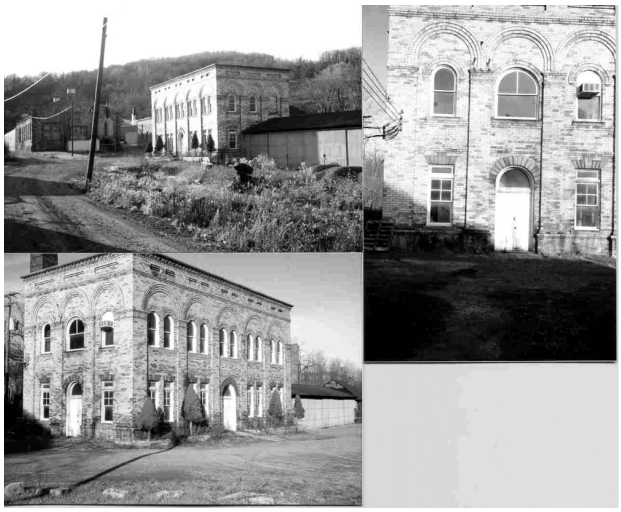


Figure 191 – Office bldg at Mount Savage, Patrick H. Stakem photos. Note shops building in background.

Station & tunnel at Frostburg
The station was renovated for use as a restaurant for the Cumberland-Frostburg Western Maryland Scenic Railroad.

Figure 191 – C&P Station at Frostburg, P. H. Stakem photo

Figure 191 – WMSR steam engine 734 on Frostburg turntable. - P. H. Stakem photo

In 1991, the Georges Creek subdivision of the

Figure 191 – Piedmont station, P. H. Stakem photo

Line from switch number 9 to Frostburg Station, including 2 bridges - in use by Western Maryland Scenic Railroad. Switch number 9 connected the WM and the C&P

Figure 191 – Loading Facilities at Shaft, Patrick H. Stakem photo, Fall 2002

CSX Transportation Company moved over 195,000 tons of coal along the old C&P line, ex-Georges Creek Railway line, from near Midlothian, to Westernport.

The train is nearing Eckhart Junction, westbound, on what was originally Mt. Savage Railroad. The designers of the Mount Savage Rail Road would be really impressed by these big diesels.

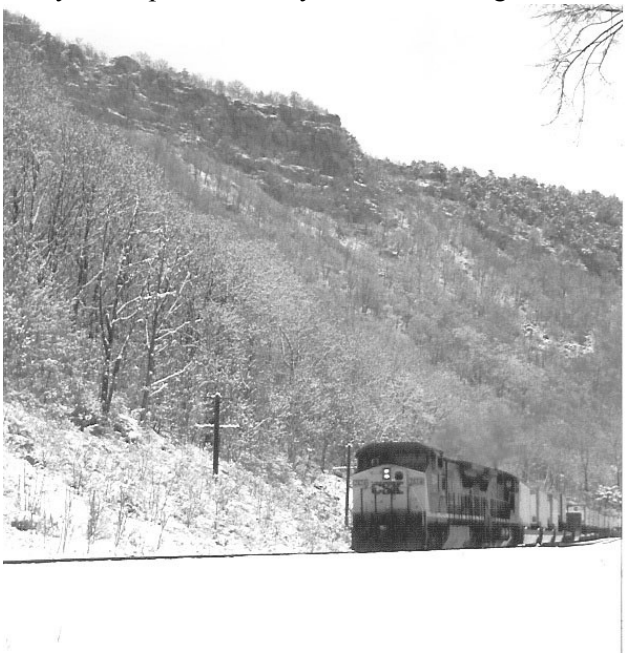


Figure 191 – CSX coal train thru Narrows, P. H. Stakem photo

The building is in the City park, near the old turntable site, and is all that remains of the once-extensive shops complex at Mount Savage. The city park playground and tennis courts replace the roundhouse and turntable.

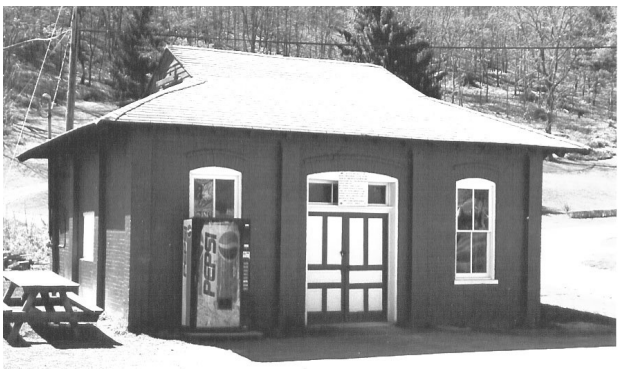


Figure 191 - Electrical Shop, Mount Savage, P. H. Stakem photo

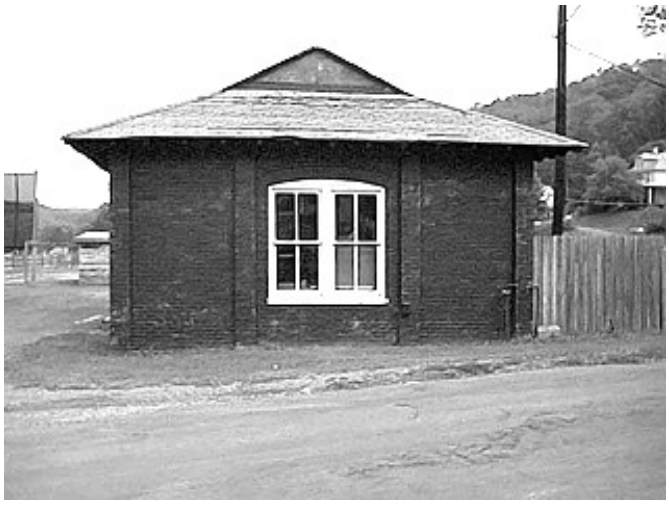


Figure 191 - Electrical Shop side view, Mount Savage, P. H. Stakem photo

Before and After pictures

William P. Price came into possession of an extraordinary set of C&P photographs that escaped destruction by the narrowest of margins. Dug out of a trash dumpster, these 36 - 8 1/2" x 6 1/2" glass plate negatives document the C&P right-of-way around the beginning of the 20th century. Bill put the photos in order, and labeled them. Deane Mellander and the author, and his son Pat, studied the maps, and set out in the Spring of 1999 to revisit the locations and re-shoot photos where possible. This is the result of that expedition.

Figure 191 – Hay Street station then

Figure 191 – Hay Street station location now

Cumberland looking East, behind Cumberland Brewing & Wellington Glass. The glass plant is long gone, as are most of the buildings of the brewery. What a difference a hundred years makes. Although, as we will see later, sometimes there is no difference at all.

Figure 191 - At the glass plant & Old German brewery then

Figure 191 – At the glass plant and brewery now

WM bridge, C&P Eckhart Jct. Bridge, Semaphore, men working with handcar. The WM bridge remains, and is in service for the Western Maryland Scenic Railroad. The Eckhart Branch bridge and the semaphore are gone.

Figure 191 – West end of the Narrows then

Figure 191 – West end of the Narrows now

The foreground bridge is for highway Route 36.

Kreigbaum. The new road alignment into Corriganville follows the old C&P right of way. Photo is looking east towards the narrows, away from Mount Savage.

Figure 191 – Looking east towards Corriganville then

Figure 191 – Looking towards Corriganville now

C&P Station, Frostburg.

Well, some things remain. Creative re-use as a train station/restaurant on the Western Maryland Scenic Tourist Train.

Figure 191 – Frostburg Station then

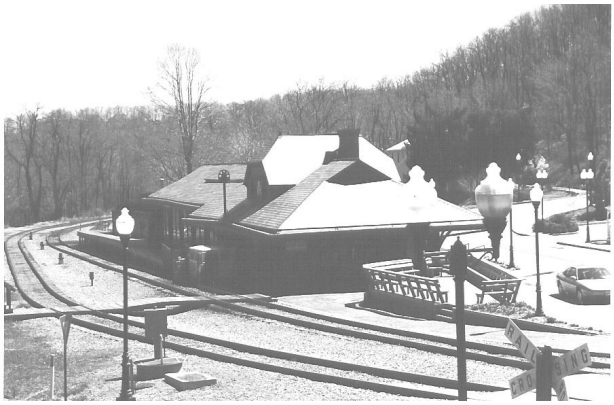


Figure 191 – Frostburg Station now

Hotel Bowen, Midland, on the left. Station on the right. A lot more private autos, now that the C&P doesn't run passenger service. Line in use by CSX.

Figure 191 - Midland then

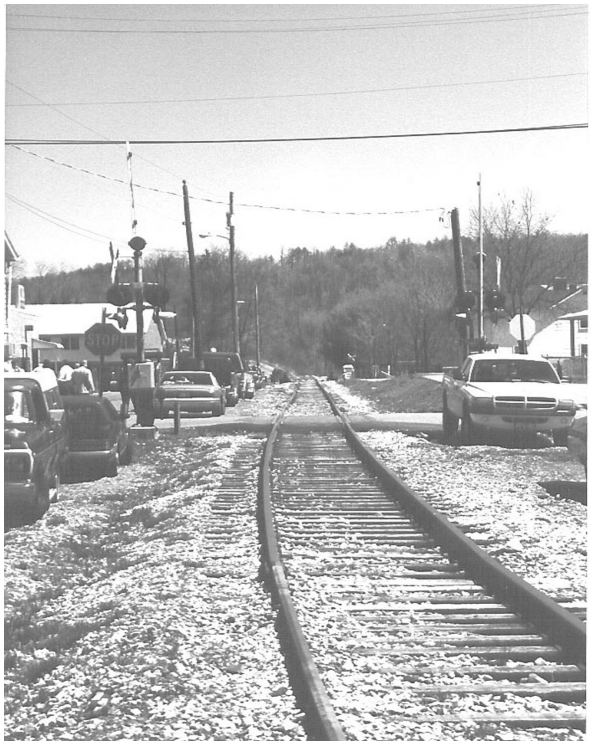


Figure 191 – Midland now

Knapp's Meadow, double headed. We can take the picture from the same location, but where are the C&P locos? Looking back towards Frostburg, near the location of the Georges Creek Elementary School on Rt. 36.

Figure 191 – Knapps Meadow then

Figure 191 – Knapps Meadow now

Lonaconing Station. Torn down.

Figure 191 – Coney Station then

Figure 191 – Location of Lonaconing Station now

11. References & Bibliography

Books and Articles

1. Adams, Richard D. “The Lancaster Locomotive Works," Published by the Friends of the Railroad Museum of Pennsylvania, 1990 (Norris locomotives).
2. Allen, Jay Douglas. “The Mount Savage Iron Works, Mount Savage, Maryland - a case study in pre-Civil War industrial development,” 1970, Thesis (M.A.) - University of Maryland, 1970.
3. Aldridge, Howard Redford. *The Mount Savage Iron Works*, 1924, Records of Phi Mu Fraternity, University of Maryland at College Park Libraries.
4. Alexander, John H. *George's Creek Coal and Iron Company*, 1836. [Baltimore?, 1837], available: FSU library: Special Collections, CALL No. : TN805.Z6G3.
5. Andrews, W. L. (Vice-President of the C&P) Protest filed with the ICC (in 25 copies), Baltimore, Md: December 19, 1922.
6. Annis, Thomas A. *Locomotive Reference*, 1920, Adrian, Michigan.
7. Beachley, Charles E. *History of the Consolidation Coal Company 1864-1934*, 1934, Consolidation Coal Company, New York.
8. Best, G. M. “Thomas H. Paul & Son, Locomotive Builders,” L&RHS Bulletin 141, Autumn, 1979, pp. 19-26.
9. Bishop, James W. *The Glass Industry of Allegany County, Maryland*, 1968, Commercial Press Printing, Cumberland, Md.
10. Brougham, Allen R. “CSXT Traffic Density in Maryland,” June 1, 1992, Bull Sheet, Baltimore, Md.
11. Bryant, William Cullen “Mount Savage, 1860,” Saturday Evening Post, 1860, Reprinted in Tableland Trails, Vol. I, No. 3, Fall, 1953, Oakland, Md.
12. Carney, Charles “The History of Mount Savage,” May 1967, Project 67-014-005, Cooperative Extensive Service, University of Maryland.
13. Carpenter, E. Roy. “Notes on WM Decapods,” undated.
14. Clark, Wm. Bullock. *Maryland Geological Survey, Allegany County*, 1900, Johns Hopkins Press, Baltimore.
15. Cook, Roger & Zimmerman, Karl. *Western Maryland Railway - Fireballs and Black Diamonds*, 1981, Howell-North Books, San Diego, Ca., ISBN 0-8310-7139-7.
16. Deffenbaugh, Mrs. Roy, “History of Mount Savage, Maryland," 1968, Mount Savage High School.
17. Dilts, James D. *The Great Road The Building of the Baltimore and Ohio The Nation’s First Railroad, 1828-1853*, 1993, Stanford University Press.
18. Dixon, Thomas W. Jr. *Appalachian Coal Mines and Railroads*, TLC Publications, 1993, ISBN 1-883089-08-5.
19. Edson, William D. *Steam Locomotives of the Baltimore & Ohio An All Time Roster*, 1992, ISBN 0-9632913-0-0.
20. Harvey, Katherine A. *The Best-Dressed Miners - Life and Labor in the Maryland Coal Region 1835-1910*, 1969, Cornell University Press.
21. Harvey, Katherine A. "The Lonaconing Journals: The Founding of a Coal and Iron Community 1837-1840," March 1977, Transactions of the American Philosophical Society, Philadelphia, Vol. 67, Part 2.
22. Heisey, M. Luther. “Papers Read Before the Lancaster County Historical Society, Vol. XLIV-No.1, Locomotives Made in Lancaster,” Lancaster, Pa. 1940 (Norris locomotives).
23. Hicks, W. Ray. “The Cumberland and Pennsylvania Railroad," March 1945, R&LHS Bulletin, No. 66, pp. 36-50.
24. Hicks, W. Ray. “The Georges Creek and Cumberland Railroad," March, 1952, R&LHS Bulletin, No. 85.
25. Hicks, W. Ray. “ The Pennsylvania Railroad in Maryland," March 1952, R&LHS Bulletin, No. 85.
26. Hicks, W. Ray. “The Connellsville Extension of the Western Maryland Railway," March 1952, R&LHS Bulletin, No. 85.
27. Hughes, George Wurtz. “Extracts from reports of an examination of the coal measures belonging to the Maryland mining company, in Allegany county; and of a survey for railroad from the mines to the Chesapeake and Ohio canal, at Cumberland,” 1837, Printed by Gales and Seaton, Washington (available: Pratt Library).
28. Jones, Dwight. *Western Maryland Cabooses*, 1991, Western Maryland Railway Historical Society, Union Bridge, Md.
29. Kline, Benjamin F.G., Jr. *Tall Pines and Winding Rivers The Logging Railroads of Maryland*, 1976.
30. Lacoste, Kenneth C., Wall, Robert D. *An Archeological Study of the Western Maryland Coal Region: The Historic Resources*, 1989, Maryland Geological Survey.
31. Latrobe, Ferdinand C., "Iron Men & their Dogs,"1941, Ivan R. Drechsler (publisher), Baltimore (on Hayward & Bartlett Locomotive Works).
32. Lee, Albin, "The Austin & Northwestern Railroad," Jan./Feb. 1990, Narrow Gauge and Short Line Gazette , pp. 60-63.
33. Lowdermilk, W. H. *History of Cumberland, Md*., 1878, Washington, D.C., reprinted, Regional Publishing Co., 1976, Baltimore, ISBN 0-8063-7983-9.
34. Lubar, Steven. *Engines of Change*, National Museum of American History, Smithsonian Institution, 1986.
35. Mellander, Deane. *Rails to the Big Vein, the Short Lines of Allegany County, Maryland*, January, 1981, Potomac Chapter, NRHS, Inc.
36. Mellander, Deane. *Cumberland and Pennsylvania Railroad,* 1981, Carstens Publishers, Inc., ISBN 911868-42-9.
37. Minor, D.K. (ed.), American Railroad Journal, Summer, 1844, tour of Mount Savage.
38. Newell, Dianne "The Failure to Preserve the Queen City Hotel, Cumberland, Maryland," 1979, Washington: Preservation Press, National Trust for Historic Preservation in the United States, c1975 ISBN 0-89133-023-2.
39. Nicolls, William Japser. *Above Ground and Below in the Georges Creek Coal Region*, 1898, Consolidation Coal Company, Baltimore.
40. Nixon, David William, “Queen City Station-Hotel," Blue Print Series, 1992.
41. Oliver, Smith Hempstone. *The First Quarter-Century of Steam Locomotives in North America*, 1956, Smithsonian Institution, U.S. National Museum Bulletin 210.
42. Paine, Charles, *The Art of Railroading*, 1987, Claycomb

Press, reprint of "The Elements of Railroading," 1895, the Railroad Gazette.
43. Poor, H.V. and H.W., *Poor's Manual of Railroads*, 1884," 1884, 17th Annual Number, and others.
44. Porter, Horace, "Railroad Passenger Travel 1825-1880," 1987, Chandler Press, ISBN 0-944593-02-X.
45. Randolph, B.S. "History of the Maryland Coal Region," Journal of the Alleghenies, Vol. XXIX-1993, pp. 47-62.
46. Rankin, Robert G., "Report on Cumberland Coal Basin," 1855, New York: John F. Trow, Printer.
47. Rehor, John A. to Charles E. Fisher, L&RHS, (letter), Feb. 18, 1963.
48. Roberts, Charles S. *West End, Cumberland to Grafton 1848-1991*, 1991, Barnard, Roberts & Co., Baltimore, Md.
49. Sagle, L.W. "Ross Winans," R&LHS Bulletin No. 70, Feb. 21, 1947.
50. Scharf, J. Thomas. *History of Western Maryland, being a history of Frederick, Montgomery, Carroll, Washington, Allegany, and Garrett Counties from the earliest period to the present day, including biographical sketches of their representative men,* 2 volumes, Philadelphia, 1882. (T. H. Paul, pp. 1488-1489)
51. Schwartz, Lee G.; Feldstein, Albert; Baldwin, Joan H. *Allegany County, A Pictorial History*, 1980, The Donning Co., Virginia Beach, Va.
52. Shackleton, J. T. (ed). *History of Railways*, 1976, Chartwell Books, Inc, Hamlyn Publishing Group (U.K.), ISBN 0-89009-0653.
53. Smith, Mike and Girous, Michelle. "Where 14000 Labored," (Altoona Shops), Locomotive & Railway Preservation, July-Aug 1987, No. 9.
54. Stakem, Patrick H. "The Engines Cumberland," March, 1992, Automatic Block, (newsletter of the Western Maryland Chapter, NRHS, Inc., Cumberland, Md., Vol. 14 No. 3.
55. Stakem, Patrick H. "The Mount Savage Rail Road 1845-1854,"June 1995, The Automatic Block, Vol. 17, No. 6; reprinted in *Cumberland Times*, Sept. 30, 1995, *Railfest* special section.
56. Stakem, Patrick H. "The Georges Creek Railroad 1853-1863," Nov. 1995, The Automatic Block, Vol 17, No. 11.
57. Stakem, Patrick H. "The C&O Canal and the Railroads, Synergy, Cooperation, and Competition," 1993, invited paper, presented to a joint meeting of the C&O Canal Historical Society and the Western Maryland Chapter, National Railway Historical Society, Western Maryland Station Center, Cumberland, Md., reprinted in June 1993, On the Towpath, C&O Canal Association.
58. Stakem, Patrick H. "The Eckhart Branch Railroad 1846-1870," Jan. 1996, The Automatic Block, Vol. 18, No. 1.
59. Stakem, Patrick H. "T.H. Paul & Sons, Locomotive Builders, Frostburg, Md. 1855-1883," Jan. 1992, The Automatic Block, Vol 14, No. 1.
60. Stakem, Patrick H. "Engine No. 5," 1995, March, 1996,The Automatic Block Vol. 18 No. 3.
61. Stakem, Patrick H. "Ross Winans and the Baltimore Engines," Feb. 1, 1996, The Bull Sheet.
62. Stakem, Patrick H. "Coal to the Western Terminus; Canal-Railroad Connections in Cumberland, Md." Sept. 1995, On the Towpath, publication of the C&O Canal Historical Society, Vol. XXVII, no. 3, p. 10-11.
63. Stakem, Patrick H. "The Potomac Wharf Branch," Sept. 1995, The Bull Sheet.
64. Stegmaier, Harry, Jr., et al. *Allegany County - A History*, 1976, McClain Publishing, Parsons, WV.
65. Stover, John F. *History of the B&O Railroad*, 1987, Purdue University Press.
66. Summers, Festus P. *The B&O in the Civil War*, 1939, (reprinted 1993), Stan Clark Military Books, ISBN 1-879664-14-3.
67. Thomas, LL.D., James W., Williams, Judge T.J.C. *History of Allegany County, Maryland*, 1923, reprinted 1969, Baltimore, Regional Publishing Co. (p. 626-628, Millholland).
68. Trostel, Scott D. *Building a Lima Locomotive: The Steam Locomotive Construction Process of Lima Locomotive Works during 1924*, 1990, Cam-Tech Publishing, ISBN 0-925436-05-4.
69. Walsh & Fox. *Maryland: A History: 1632 - 1974*, Maryland Historical Society, Baltimore, 1974.
70. Ware, Donna M. *Green Glades and Sooty Gob Piles*, 1991, Maryland Historical Trust.
71. White, John H. Jr. *A History of the American Locomotive Its Development 1830-1880*, 1968, Dover Publications, Reprinted 1979, ISBN 0-486-23818-0.
72. White, John H. Jr. *Early American Locomotives*, 1972, Dover Publications, ISBN 0-486-22772-3.
73. White, John H. *A Short History of American Locomotive Building in the Steam Era*, Bass Books, 1982, Washington, D.C.
74. Wigginton, Eliot (ed). *Foxfire 5*, 1979, Anchor Books, p. 77-207. (Iron manufacturing).
75. Winans, Ross. Pocket Notebook, 1846-1855, Collections of the Maryland Historical Society, Baltimore, Md., Folder 72, Box 23.
76. *92 Years of Transportation Progress by the C&P Railroad and its Contribution towards the Development of Cumberland, and Allegany County, Maryland*, 1937, C&P Railroad, Cumberland, Md.
77. Baldwin Catalog of Locomotives, circa 1915, reprint, Specialty Press, Ocean, NJ, ISBN 0-913556-03-3.
78. The Baldwin Locomotive Works, *Locomotive Data*, Philadelphia:1939, reprinted by Strasburg Railroad, 1991.
79. Baltimore and Ohio Railroad Company. "Papers relative to the recent contracts for motive power, by the Baltimore and Ohio Rail Road Co. and the reports of the officers of the different departments on the relative advantages of the Winans camel engine, and the ten wheel engine, for the various branches of their service," 1857, Baltimore: Printed by J. Lucas and Son, (avail, Pratt Library, Baltimore).
80. *Charters, Acts of Legislation, and By-laws relating to the Consolidation Coal Company and the Cumberland and Pennsylvania Railroad Company of Maryland*, 1872, New York, William R. Vidal, Stationer.
81. *C&PRR Co. Operating Department Rules for Conducting Transportation*, in effect Jan. 1, 1939, Form 336-300, File 31-A-2-7, Cumberland & Pennsylvania Railroad Company.

82. *C&PRR Co.* Wage Schedule, 1918.
83. Cumberland Sunday Times, March 24, 1957.
84. *Dictionary of American Biography*, 1930, New York: Charles Scribner's Sons.
85. Frostburg Mining Journal, Jan. 13, 1872 (passenger service).
86. Interstate Commerce Commission Valuation Report on the C&P RR, 1923, residing in the National Archives II Facility, College Park, Md.
87. Journal of the Alleghenies, Vol. XXII, 1986 (Queen City Hotel).
88. *Locomotive Advertising in America*, 1850-1900, 1989, Chandler Press, ISBN 0-944593-127.
89. "Queen City story as told in news articles," 1981, Cumberland, Md.: Preservation Society of Allegany County.
90. *Rail Tracks in Allegany County, Maryland*, Book 1, 1980, Preservation Society of Allegany County, Md., Cumberland, Md.
91. Report of President & Board of Directors of Cumberland Coal & Iron Company to the Stockholders, Feb. 11, 1853, New York: John F. Trow, Printer.
92. Winans papers, Maryland Historical Society, Baltimore, Folder 3, box 1.
93. Letter from Mr. Claus, General Manager of C&P to Mr. Charles E. Fisher, L&RHS, dated March 23, 1939, Cumberland, Md. P. H. Stakem collection
94. Brown, John K. *The Baldwin Locomotive Works, 1831-1915*, Baltimore: Johns Hopkins University Press, 1995, ISBN 0-8018-5047-9.
95. Stakem, Patrick H. "The Mount Savage Locomotive Shops," NRHS Bulletin, Spring/Summer 1997.
96. Stakem, Patrick H. "T. H. Paul, Master Locomotive Builder of Frostburg, Journal of the Alleghenies, 1997.
97. Meyer, J. G. A. *Modern Locomotive Construction,* 1892, J. Wiley & Sons, reprint 1994, Lindsay Publications.
98. Hunt, J. William. "C&P Make Tracks in Early Years," April 25, 1965, Cumberland Times, *Across the Desk.*
99. Duncan, Richard R. "The Raid on Piedmont and the Crippling of Franz Sigel in the Shenandoah Valley," West Virginia History, Vol. 55, pp. 25-40.
100. Scott, Harold L. Sr. *The Civil War Hospitals at Cumberland & Clarysville*, Maryland, 1995. 101. Adams, Richard D. "A Project in PRR History - the Bedford Branch," Keystone, June 1980, PRR Technical and Historical Society, Upper Darby, PA.
102. Francis, C. B. "The Making, Shaping and Treatment of Steel," 5th ed. United States Steel, 1940, Carnegie-Illinois Steel Corp.
103. Heritage Review, newsletter of the Preservation Society of Allegany County, Cumberland, Maryland. Various issues. Vol. 27, No. 10, Oct. 1999 has an article on the iron mines.
104. Merriam, Andrew "Notes Along the Pacific Coast Right of Way Nineteenth Century Steam Locomotives," SLO Trains, (San Luis Obispo Model Railroad Club) Vol 13, Issue 9, Sept 2001.
105. Feldstein, Al *Feldstein's Historic Coal Mining and Railroads of Allegany County, Maryland*, ISBN 097016050X, May 2000.
106. Eckman, David L. "Through the Narrows to Coal Country….The Cumberland & Pennsylvania Railroad," The Railroad Enthusiast, v 14 n 1&2, 1977

References for GC&C

1. Hicks, W. Ray. "Georges Creek and Cumberland Railroad," *R&LHS Bulletin* No. 85, March 1952 pp. 11-18.
2. Hicks, W. Ray. "Pennsylvania Railroad in Maryland," *R&LHS Bulletin* No. 85, March 1952, pp. 9-10.
3. Hicks, W. Ray. "The Connellsville Extension of the Western Maryland Railway," *R&LHS Bulletin* No. 85, March 1952, pp. 19-25
4. Urbas, Anton. "GC&CRR Passenger Train Service," 1993, *J. Alleghenies*, Vol. XXIX-1993, pp. 38-47.
5. GC&C Passenger Schedule, January 18, 1887, courtesy, Dan Coxe, Cumberland, Md.

References on the Cumberland and Westernport trolley system

1. Tosh, Francis B. "Cumberland & Westernport Electric Railway," 1963, Bulletin of the National Railway Historical Society, Vol. 28 No. 4 p. 24.
2. *Automatic Block*, newsletter of the Western Maryland Chapter, NRHS, Inc. Cumberland Electric Railway (Trolley)
Jun91, v13, n6, Jul90, v12, n7, Oct97, v19, n10; Nov 2000 v 22 n11; Oct 99 v21 n10Oct 98 v 20 n10; Oct 2000 v 22 n 10 Queen City trolley cars, Jun91, v13, n6

Reference Maps

1. U. S. Geological Survey, 7.5 minute Topological Maps – Maryland: Cumberland, Frostburg. Lonaconing Quadrangle.
2. C&P Railroad, 1938 Route Map, reprinted by Western Maryland Chapter, NRHS, Inc., Cumberland, Md.
3. "Mines served by C&PRR", C&PRR.
4. C&PRR Right of Way, series of 38 maps, circa 1918.
5. The Celanese Extension, C&P Railroad Map, dated April 23, 1934.

C&P Engine Roster

road #	name	build date	builder	weight	cylinders	wheels	type	renum	rebuild	disposition
1	Allegany	1865	H&B	86000	19x22	43	0-8-0	ex-14	1887	sold 1905
1	Mt. Savage	1848	Winans	50400	17x22	43	0-8-0		1868	scrap 1891
2	Piedmont	1865	H&B	74000	19x22	42	0-8-0	ex-15	1888	sold 1905
2	Highlander	1852	Winans	57400	19x22	43	0-8-0		6-1868	scrap 1891
3		1888	Mt. Savage	102000	20x24	50	2-8-0	ex-18		sold 1908
3	Frostburg	1852	Winans	57400	19x22	43	0-8-0		1866-75	scrap 1896
4		1889	Mt. Savage	102000	20x24	50	2-8-0	ex-20		sold 1913
4	John G. Lynn	1853	Winans	57400	19x22	43	0-8-0		1874	scrap 1896
5		1873	Baldwin	102000	20x24	49	2-8-0	ex-32	1885	scrap 1904
5	A.H. Stump	1852	S&P	59860	-	-	2-6-0			scrap 12/75
6	Georges Creek	4-2-1853	Baldwin	30000	13.5 x 18	42	0-8-0			scrap 1876
6	Maryland	1865	Norris (L)	67800	17x24	54	4-4-0	ex-17	1898, 02	sold
7	Lonaconing	11-14-1853	Baldwin	44000	16.5 x 20	42	0-6-0		yes	scrap 1874
7		11-1892	Mt. Savage	101000	19x24	54	2-6-0	ex-28		sold 1907
8	Wm. Borden	4-23-1858	D&C	62600	18x24	48	4-6-0			scrap 1880
8		11-1892	Mt. Savage	101000	19x24	54	2-6-0	ex-29		sold 1924
9		5-1902	Mt. Savage	146500	20x24	56	4-6-0	ex-27		scrap 10/30
9	W. Delano	1859	Winans	-	19x22	43	0-8-0		yes	scrap 1886
10		1903	Mt. Savage	146500	20x24	66	4-6-0	ex-30		scrap 1936
10	E. Pratt	1859	Winans	74300	19x22	43	0-8-0		1866-75	scrap 1895
11		5-1889	Mt. Savage	119000	20x24	50	2-8-0	ex-51		scrap 8-15-33
11	C.E. Detmold	1859	Winans	75900	19x22	43	0-8-0		yes	scrap 1893
12		9-1889	Mt. Savage	119000	20x24	50	2-8-0	ex-52		scrap 8/31/27
12	M.B. Bramhall		Winans	74370	19x22	43	0-8-0		1866-75	scrap 1895
13		9-1890	Mt. Savage	119000	20x24	50	2-8-0	ex-53		scrap 8/31/27
13	A.C. Green		Winans	-	19x22	43	0-8-0		1866-75	scrap 1893
14		5-1891	Mt. Savage	119000	20x24	50	2-8-0	ex-54		scrap 8/31/27
15		12-1891	Mt. Savage	119000	20x24	50	2-8-0	ex-55		scrap 8/31/27
16	Potomac	7-1865	H&B	74800	19x22	42	0-8-0		1889	
16		8-1892	Mt. Savage	119000	20x24	50	2-8-0	ex-56		scrap 6/30/31
17		11-1895	Mt. Savage	119000	20x24	50	2-8-0	ex-57		scrap 6/30/31
18		1-1896	Mt. Savage	119000	20x24	50	2-8-0	ex-58		scrap 8/31/27
18	Cumberland	1865	Norris (L)	92000	-	-	0-8-0		yes	
19		1885	Mt. Savage	103500	20x24	50	2-8-0			
19		8-1897	Mt. Savage	119000	20x24	50	2-8-0	ex-59		scrap 1913/sold
19	Pennsylvania	1865	Norris (L)	-	-	-	0-8-0		yes	
20	New York	1866	H&B	-	19x22	42	0-8-0		yes	scrap
20		6-1898	Mt. Savage	119000	20x24	50	2-8-0	ex-60		scrap 5-26-12/sold
21		3-24-1870	Baldwin	96000	20 x 24	49	2-8-0	ex-26		scrap 7/1944

21	Baltimore	8-1866	H&B	-	19x22	44	0-8-0		yes	
22		1899	Mt. Savage	148500	21x26	50	2-8-0	ex-61		to WM
22		1867	Winans	69800	19x22	43	0-8-0		1870,75	scrap 1891
23		10-1-1904	Mt. Savage	174500	21x26	50	2-8-0	ex-19		scrap 7/44
23		1867	Winans	66420	19x22	43	0-8-0		1870	scrap 1890
24		3-22-1870	Baldwin	96000	20 x 24	49	2-8-0	ex-25	1888,01	scrap 7/1944
24		1868	Mt. Savage	87300	19x26	-	0-10-0			
24		9-1901	Mt. Savage	174500	21x26	50	2-8-0			
25		12-1902	Mt. Savage	174500	21x26	50	2-8-0	ex-31		sold 11/23
26		9-1899	Mt. Savage	174500	21x26	50	2-8-0	ex-62		to WM
27		1880	Baldwin	75000	17x24	55.5	4-4-0			
27		2-1-1910	Mt. Savage	174500	21x26	50	2-8-0			scrap 7/94
27	Eckhart	1849	Winans	74300	17x22	42	0-8-0			
28		6-1-1910	Mt. Savage	174500	21x26	50	2-8-0			sold 1923
28	Mountaineer	1849	Winans	74300	19x22	43	0-8-0			scrap 1876
29		1912	Mt. Savage	174500	21x26	50	2-8-0			scrap 7/1944
29	Black Monster	1853	Winans	74300	19 x 22	43	0-8-0			
30		1913	Mt. Savage	174500	21x26	50	2-8-0			scrap 7/1944
30	Cumberland	1853	Winans	-	-	-	0-8-0			
30	Braddock	1854	Winans	74300	17x22	43	0-8-0	ex-31		
31		1873	Baldwin	96000	20x24	49	2-8-0		1879	
31		1915	Mt. Savage	174500	21x26	50	2-8-0			sold -W&W
32		1910	Mt. Savage	174500	21x26	50	2-8-0			sold W&W
33		1917	Mt. Savage	174500	21x26	50	2-8-0			stored, 1944
34		1917	Mt. Savage	-	-	-				not complete
37		1905	Baldwin	192000	22x28	50	2-8-0	ex-27		sold
38		1905	Baldwin	192000	22x28	50	2-8-0	ex-28		sold
39		1906	Baldwin	192000	22x28	50	2-8-0	ex-29		sold

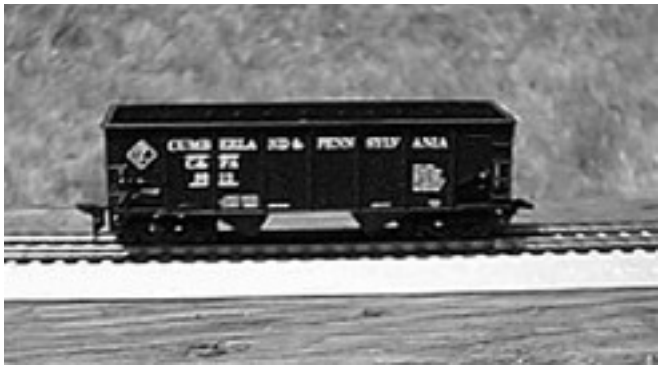


Figure 191 - C&P coal hopper

Appendix I C&P Modelers Guide

The C&P lends itself well to custom modeling. There were numerous special cars, including several custom tool and work cars.

a) **custom tool car**. built in HO scale from the cab from a Walthers 932-5530, and an Athern 1400 50' flat car. The lumber storage area was scratch built. No good roster shots of this car remain.

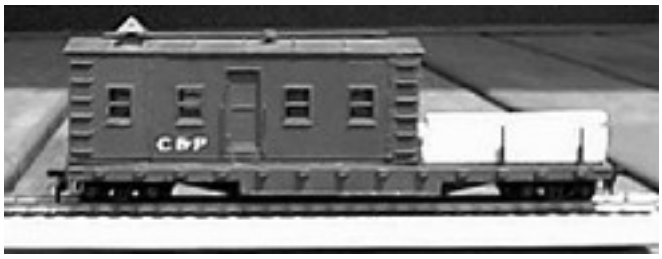


Figure 191 - C&P's custom tool car

b) **C&P special car 605**. This car is a scratch-build dream. It requires a 40' flat, the coal hopper from a tender, a section shack, and a set of stairs. A photo is available from Vollrath page 57. The special car No. 605 was used as a tunnel icebreaker.

Figure 191 – Special car

c) **C&P metal coal hoppers** were produced by BevBel in several different road numbers, in HO scale.

Tender Lettering

Most C&P tenders, whether built by Mount Savage, Baldwin, or Winans, were of the 8-wheel variety, having two trucks of 4 wheels each. An exception is the engine *Georges Creek*, of Baldwin build, and inherited from the Georges Creek Railroad. It has a 6 wheel tender, with 3 axles. C&P Tenders circa 1900's sported a rear lamp, an air tank on the rear pilot, and a cowcatcher.

There were three distinct painting and lettering schemes for the cabooses and engines. The base color is, of course, black.

Style 1 has the logo "C. &. P. R. R." on the side of the tender. The engine number is placed on the back of the tender. The number on the engine is about 22" in size, while the lettering on the tender appears to be 17". (examples, engines 61, 60, 58, 33)

Figure 191 - Lettering style 1, J. G. Farrell collection

Style 2 has the logo "C. &. P. XX R. R.", where XX is the engine number. The engine numbering is 12", the engine number on the tender is 14", and the tender lettering is 8". Examples are found on engines 51, 53, 54, 55, 56.

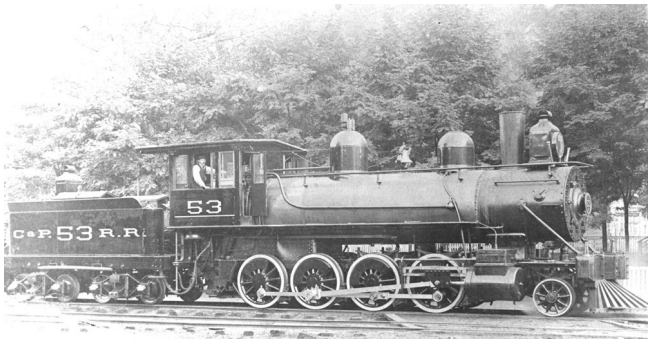
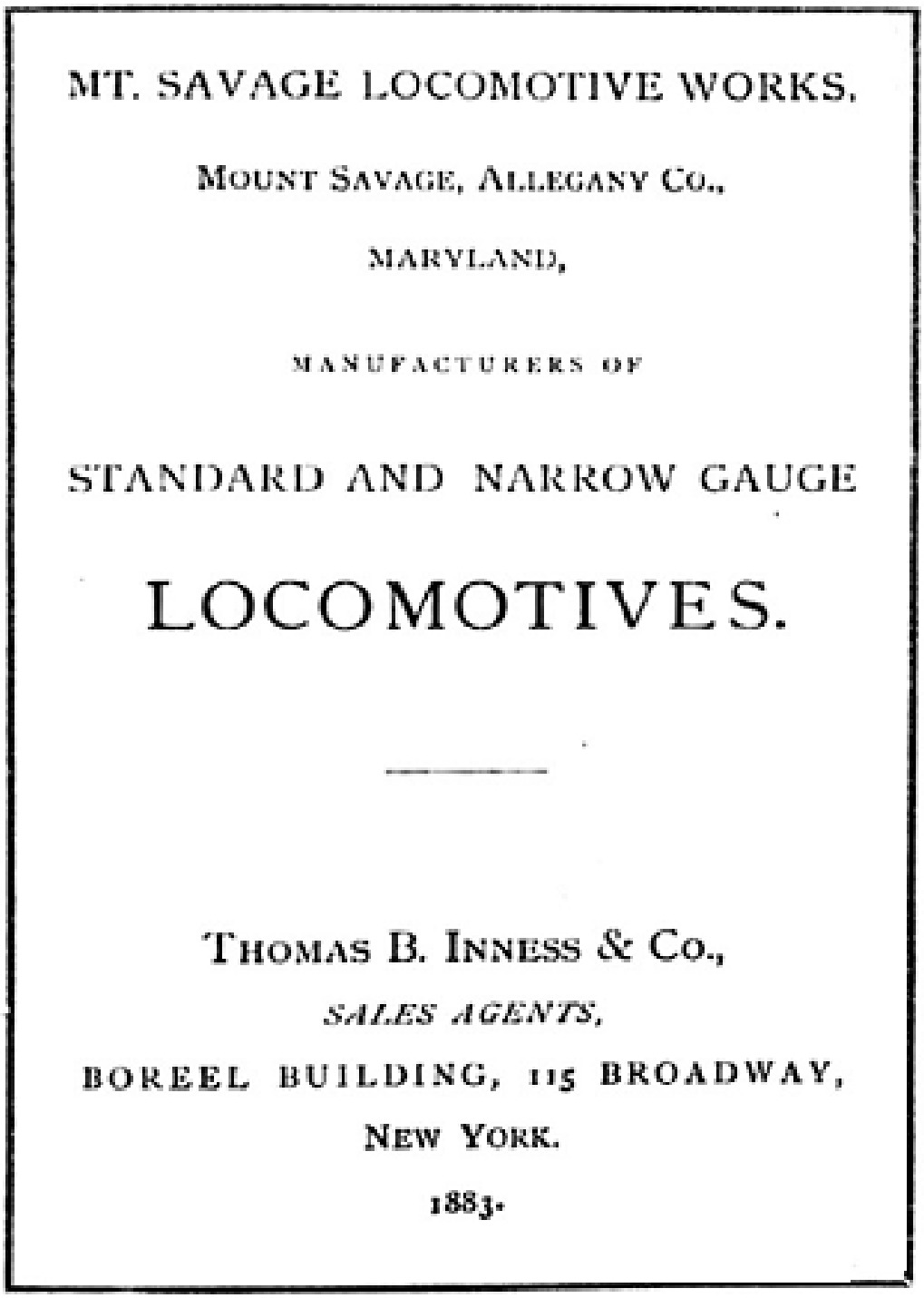


Figure 191 - Lettering style 2, J. G. Farrell collection

Style 3, used on the modern tenders, has the words, "CUMBERLAND AND PENNSYLVANIA" in all-capitals in 3 lines on the side of the tender. The font size for the "AND" is smaller than for the other words. On the back of the tenders, at the top, the water capacity is given, with the C&P diamond logo below. Then, the engine number is present, with the logos "Safety First", and "Watch your step".

Figure 191 - Lettering style 3, J. G. Farrell collection

Appendix II – The Mount Savage Locomotive Works Catalog of 1883



MT. SAVAGE LOCOMOTIVE WORKS.

MOUNT SAVAGE, ALLEGANY CO.,

MARYLAND,

MANUFACTURERS OF

STANDARD AND NARROW GAUGE

LOCOMOTIVES.

THOMAS B. INNESS & CO.,

SALES AGENTS,

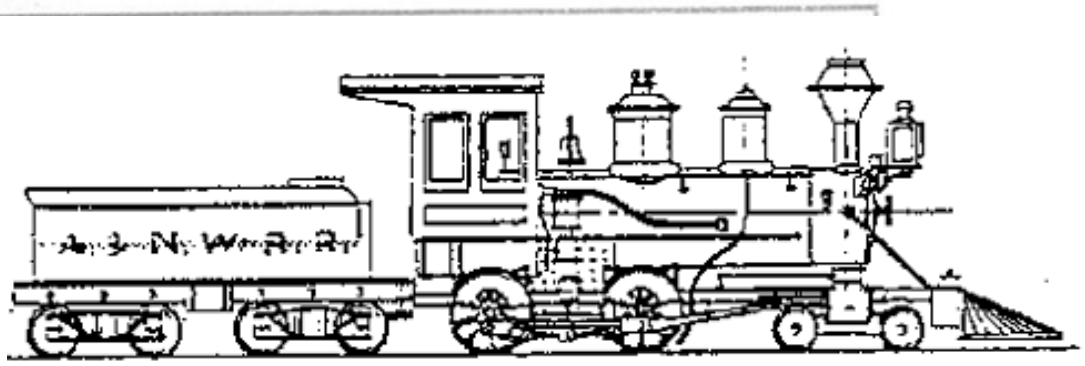
BOREEL BUILDING, 115 BROADWAY,

NEW YORK.

1883.

Figure 191 - Mt. Savage Locomotive Catalog

PRESS OF J. J. LITTLE & CO.,
NOS. 10 TO 20 ASTOR PLACE, NEW YORK.



AMERICAN
4-4-0

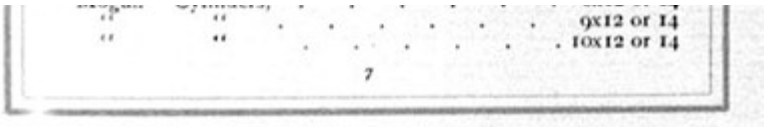
Gauge,	36 inches.
Fuel,	Coal.
Diam. Cylinders,	10 inches
Length of Stroke,	18 "
Number of Drivers,	Four.
Size of Drivers,	40 inches.
Rigid Wheel Base,	72 inches.
Total " "	15 feet 10 inches.
Weight in Working Order,	38,000 lbs.
Weight on Drivers,	25,300 lbs.
Boiler,	Iron.
Style of Boiler,	Plain or "Wagon Top."
Diam.	43 inches.
Fire Box,	3-8 inch iron.
Inside Dimensions of Fire box,	48 inches x 19inches
Flue sheets,	7-16 in. iron.
Number of Flues,	130.
Diameter of Flues,	2 inches.
Driving Axles,	4 3/4" diam. at wheel seat
Steel Tires,	2 1/4 in. thick
Cab,	Ash or Oak, Tin Roof.
Forward Truck,	4-wheel equalized.
Truck Wheels,	20 in.dia
Tender,	8 - 24" wheels.
Frame,	Yellow Pine.
Transoms,	Wrought Iron.
Capacity of Tender,	1,200 gallons.
Pump,	One.
Injector,	One.
Bell,	One.
Tools,	Full Set.

Changes in gauge or specification will be made to suit customers.

Regular Sizes Made.

Cylinders,	12x18 or 20
"	

(note: this page was reconstructed from the best known information available)



MOGUL LOCOMOTIVE.

Gauge,	36 inches.
Fuel,	Coal.
Diam. Cylinders,	14 inches.
Length of Stroke,	18 "
Number of Drivers,	Six.
Size of Drivers,	40 inches.
Rigid Wheel Base,	10 feet.
Total " "	16 "
Weight in working order,	49,000 lbs.
Weight on Drivers,	44,000 "
Boiler,	5-16 in. iron.
Style of Boiler,	Plain or " Wagon Top."
Diam. "	43 inches.
Fire Box,	3-8 inch iron.
Inside Dimensions of Fire Box,	65 in. x 19 in.
Flue Sheets,	7-16 in. iron.
Number of Flues,	130.
Diameter of Flues,	2 inches.
Driving Axles,	5¼ in. diam. at wheel seat.
Steel Tires,	2½ in. thick.
Cab,	Ash or Oak, Tin Roof.
Forward Truck,	2-wheel " Bogie."
Truck Wheels,	24 in. diam.
Tender,	8 24-in. wheels.
Frame,	Yellow Pine.
Transoms,	Wrought Iron.
Capacity of Tender,	1,600 Gallons.
Pump,	One.
Injector,	One.
Bell,	One.
Tools,	Full Set.

Changes in gauge or specification will be made to suit customers.

Regular Sizes Made.

Cylinders,	12x18 or 20
"	13x18 or 20
"	14x18 or 20
"	15x18 or 20

[COPY.]

PIEDMONT, W. Va.

May 9, 1883.

P. I. BURWELL, ESQ.,
General Supt. C. & P. R. R.,
Cumberland, Md.

Dear Sir:

Standard Gauge Consolidation Engine No. 3, built by your Company for the West Va., C. & P. R. R. Co., has been running since June, 1882, pushing and pulling a train of empty cars, equaling nine (9) loaded cars, up a grade of one hundred and fifty-six (156) feet to the mile.

The engine makes steam freely, goes around the curves with ease, and has done its work satisfactorily.

Very respectfully,

T. B. DAVIS, Gen'l Manager.

COMPARATIVE TABLE DEGREES TO RADIUS OF CURVES.

Degrees.	Feet Radius.	Degrees.	Feet Radius.	Degrees.	Feet Radius.
1	5730	18	318	35	163
2	2865	19	301	36	159
3	1910	20	286	37	155
4	1432	21	273	38	150
5	1146	22	260	39	147
6	955	23	249	40	143
7	818	24	238	41	139
8	716	25	229	42	136
9	636	26	220	43	133
10	573	27	212	44	130
11	521	28	206	45	127
12	477	29	197	46	125
13	441	30	191	47	122
14	409	31	185	48	119
15	382	32	179	49	117
16	358	33	174	50	114
17	337	34	169		

COMPARATIVE TABLE DEGREES OF CURVATURE TO GRADE.

Degrees.	Feet Grade.	Degrees.	Feet Grade.	Degrees.	Feet Grade.
1 equals	1¼	8 equals	12 5/10	15 equals	35 5/10
2 "	3 1/10	9 "	14¼	16 "	50 7/10
3 "	4¾	10 "	15 5/10	17 "	53 7/10
4 "	6¼	11 "	26 1/10	18 "	57
5 "	7 1/10	12 "	28½	19 "	60 1/10
6 "	9½	13 "	30 7/10		
7 "	11 1/10	14 "	33¼		

TONS RAILS REQUIRED PER MILE SINGLE TRACK.

Weight per yard.	Tons of 2240 lbs. per mile.	Weight per yard.	Tons of 2240 lbs. per mile.
16 lbs.	25 tons, 320 lbs.	35 lbs.	55 tons, 0 lbs.
20 "	31 " 960 "	40 "	62 " 1920 "
25 "	39 " 640 "	45 "	70 " 1600 "
28 "	44 " 0 "	56 "	88 " 0 "
30 "	47 " 320 "	60 "	94 " 640 "

SPLICE PLATES.

Weight of Rail.	Length of Plate.	Weight of Plate.	Bolts.
16 lbs.	15 inches.	2½ lbs.	½ x 2
20 "	15 "	3 "	½ x 2½
25 "	15 "	3½ "	⅝ x 2½
30 "	15 "	4 "	⅝ x 2½
35 "	15 "	4½ "	⅝ x 2½
40 "	15 "	5 "	⅝ x 2½
50 "	18 "	7 "	¾ x 3
56 "	18 "	8 "	¾ x 3
60 "	20 "	9 "	¾ x 3½

For rails of 16 to 20 lbs. per yard, each joint weighs 5 to 6 lbs.
" " 24 to 28 " " " " " 6 to 8 "
" " 30 to 35 " " " " " 10 to 12 "
" " 40 to 50 " " " " " 12 to 16 "
" " 56 to 60 " " " " " 18 to 24 "

CROSS TIES PER MILE.

Centre to Centre.	Ties.
1½ feet,	3520
1¾ "	3017
2 "	2640
2¼ "	2348
2½ "	2113

SPLICE JOINTS PER MILE.
2 bars and 4 bolts and nuts to each joint.

Rails 20 feet long,	.	528 joints.
" 24 "	.	440 "
" 26 "	.	406 "
" 28 "	.	378 "
" 30 "	.	352 "

RAILROAD SPIKES.

Size measured under head.	Average number Spikes per keg of 150 lbs.	No. of kegs req'd pr. mile. Ties, 2 ft. 4 spks. to tie.	Weight of Rail with which spike is used.
5½ x 9-16	280	38	45 to 70 lbs. per yd.
5 x 9-16	300	35	40 to 56 " "
5 x 1-2	340	31	35 to 40 " "
4½ x 1-2	400	27	30 to 35 " "
4 x 1-2	450	24	28 to 35 " "
4½ x 7-16	510	21	25 to 30 " "
4 x 7-16	540	20	
3½ x 7-16	675	16	20 to 25 " "
4 x 3-8	760	14	
3½ x 3-8	890	12	16 to 20 " "
3 x 3-8	930	11½	

A FEW USEFUL ITEMS.

To find the number of tons of rails required per mile of single track, multiply the weight per yard by 11 and divide the product by 7.

Ten per cent. of the cost of rails per mile is generally allowed for cost of fastenings per mile.

Everything being in good order, a locomotive will haul the following percentages of what it will on a level:

25	feet	grade	per	mile,	40 per cent.
40	"	"			30 "
50	"	"			25 "
80	"	"			16 "
100	"	"			12 "
120	"	"			10 "
150	"	"			7½ "
200	"	"			5 "

If you want rails, fastenings or second-hand rolling stock, we are prepared to furnish almost anything required in this line.

We try to be thoroughly posted in regard to condition of second-hand rolling stock which is placed in our hands for sale, as those who have dealt with us can testify.

Very respectfully,

THOS. B. INNESS & CO.

In 1937, the C&P released a 16 page commemorative booklet for it's 92nd year. A copy from the collection of P. H. Stakem is reproduced here. It was originally issued to Mr. Walter Johnson, and is signed by Mr. Claus, C&P General Manager. Page 2 is blank, and was not reproduced.

Organization
OF THE
Cumberland and Pennsylvania Railroad Company
August 8, 1937

Robert C. Hill, President.....New York, N. Y.
J. Noble Snider, Vice President.....New York, N. Y.
Charles E. Beachley, Secy. and Treas.....New York, N. Y.
George W. Kratz, Controller.....New York, N. Y.
William Claus, General Manager.....Cumberland, Md.
Edwin T. Dixon, Auditor.....Cumberland, Md.
R. R. Tiley
Engr. Main. of Way and Structures....Cumberland, Md.
Frank E. Naughton, Trainmaster.....Cumberland, Md.
Thomas Moran
General Foreman of
Maintenance of Equipment.....Mt. Savage, Md.

GENERAL OFFICES

30 Rockefeller Plaza — New York, N. Y.

LOCAL OFFICES

Clark-Keating Building — Cumberland, Md.

TELEPHONE 1028

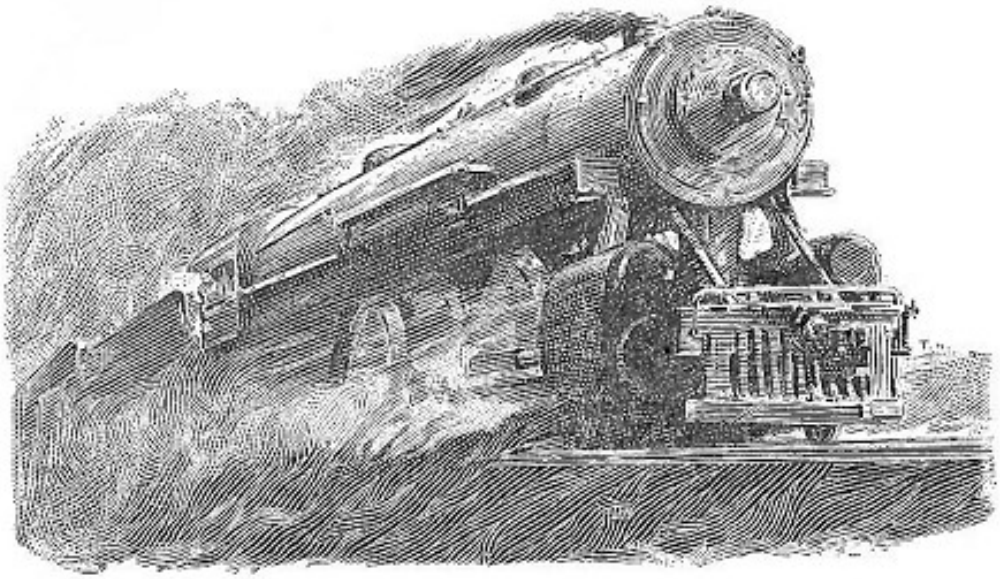
Figure 191 - Commerative Booklet

Historical

At about the time of the Revolutionary War, when the thirteen original states were struggling for independence, the question of cheap transportation of coal from our interior mines to the seaboard was one uppermost in the minds of leading men of affairs. Our great Washington took a deep interest in the question, and he was largely instrumental in obtaining a charter from the states of Virginia and Maryland for the construction of the Chesapeake and Ohio Canal, which was designed to connect the waters of the Chesapeake with the Ohio River.

A vigorous beginning was made by the construction company, known as the Potomac Company, formed to prosecute the work, and Washington was the first president of that company. His attention had been called to the importance of securing a cheap through-water route through the regions with which he was most familiar, and which he had personally explored during, previous to, and after his connection with the ill-fated Braddock expedition. Actual work was not commenced on the canal until 1828.

Not long afterward The Baltimore and Ohio Railroad Company was incorporated, and designed as a commercial rival of the canal. They both became urgent applicants for state aid from Maryland, and an animated struggle was prosecuted between those corporations, which embraced lengthy discussions of the merits of the relative methods. As yet there was not a single locomotive in the United



"The Railroad Still Lives"

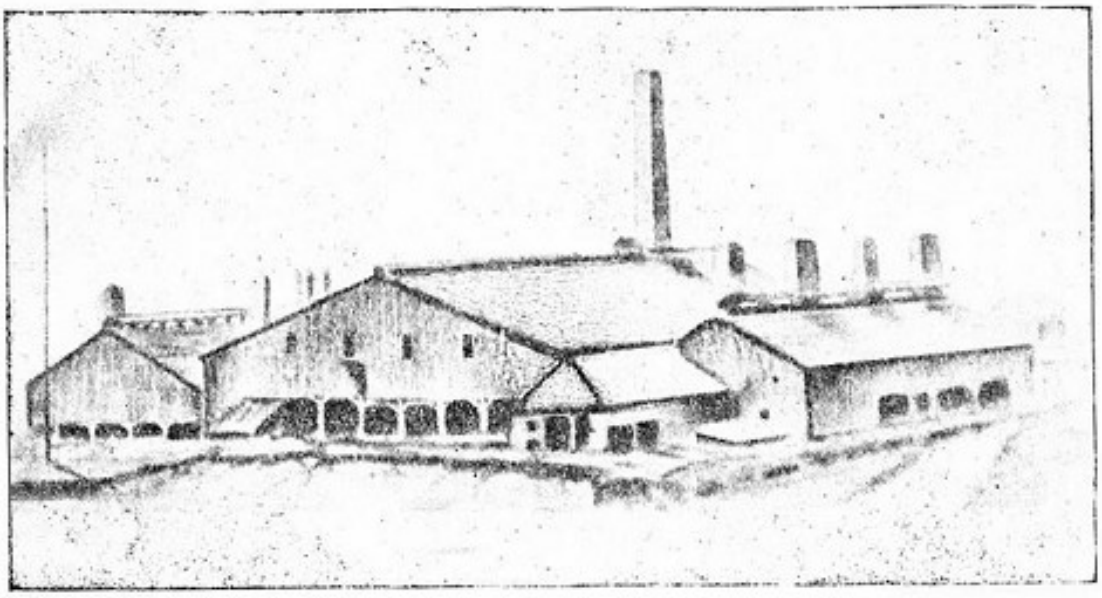
States, but a strong point in favor of the railways as against canals was the success of the first two English lines, used for general traffic—the "Stockton and Darlington," opened in 1825, and the "Liverpool and Manchester," opened in 1829.

It was at first uncertain whether The Baltimore and Ohio Railroad was to be operated by horses or steam as motive power, but the conclusion was finally reached by Mr. Horatio Allen, who made the following report:

> "In the future there is no reason to expect any material improvement in the breed of horses, while, in my judgment, the man is not living who knows what the breed of locomotives is to place at our command."

In Peter Parley's School of History, written about 1830, he says: "The people are building what is called a railroad. This consists of iron bars laid along the ground and made fast, so that carriages with small wheels may run along on them with facility. In this way one horse will be able to draw as much as ten horses on a common road. A part of this road is already done, and if you choose to take a ride upon it, you can do so. You will mount a car something like a stage, and then you will be drawn along by two horses at the rate of twelve miles an hour."

By November 1, 1842, the Baltimore and Ohio Railroad completed its line from Baltimore to Cumberland, a distance of 171 miles. The remainder of the road from Cumberland to the Ohio River at Wheeling was placed under contract during the year 1848, and the first completed division of the road was that along the Potomac River from Cumberland to Piedmont, opened in July, 1851, and finally completed from Baltimore to Wheeling, 379 miles, on January 1, 1853.



The Mount Savage Iron Mill, from an Early Print

Railroad Antecedents

The year that witnessed the starting of work on both the Chesapeake and Ohio Canal and The Baltimore and Ohio Railroad—1828—also saw the birth of the first regularly incorporated coal company in the Georges Creek region—The Maryland Mining Company. The excellence of Georges Creek coal had been fully established at that early date; all that was needed to interest Eastern capital in the development of these deposits was the assurance of reliable transportation to the seaboard markets. This assurance the canal and the railroad provided.

The Maryland Mining Company is the oldest and most direct antecedent of the Cumberland and Pennsylvania Railroad Company. It was followed ten years later by the Maryland and New York Iron and Coal Company, another antecedent of the Cumberland and Pennsylvania Railroad Company, the history of both are interwoven with that of The Consolidation Coal Company. There are, therefore, two distinct lines of descent—the mining company and the railroad company. Let us trace the history of the railroad company.

In 1838 a group headed by Lewis Howell obtained from the Maryland Legislature a charter incorporating the Maryland and New York Iron and Coal Company. Among the provisions of the charter was one authorizing the company to construct a railroad from mines to be opened by it in Allegany County to a point or points on the Chesapeake and Ohio Canal at or near Cumberland. Mr. Howell and his associates foresaw in the bituminous coal of the Cumberland Region a large and growing trade: they looked forward to the completion both of the canal and of the

Cumberland and Pennsylvania Railroad Company

The Cumberland and Pennsylvania Railroad Company—the first through railroad in the Georges Creek coal basin and still the only one traversing the entire region—was incorporated by the Maryland Legislature on March 4, 1850, with a capital stock of $1,000,000 and the power to construct and maintain a railroad "from the Town of Cumberland to some suitable point on the dividing line between the states of Maryland and Pennsylvania." Later, the charter was amended by giving the company power to connect with any existing railroad from Cumberland to any point west, and to construct a line from the point of such connection to the Pennsylvania state line or to purchase any such railroad or part of such railroad.

Subscription books were open on April 15, 1853, and the entire stock was subscribed in ten days, the Mount Savage Iron Company subscribing for 9,992 shares, in consideration for which in November of the same year the Mount Savage Iron Company conveyed to the Cumberland and Pennsylvania Railroad Company its railroad extending from the depot of the Baltimore and Ohio and Potomac Wharf in Cumberland to the mines at Frostburg, as well as its interest in wharf property, and thus retired from railroad operations.

CUMBERLAND AND PENNSYLV
COMPANY

Statistics August 8, 1

Tracks Operated—

Cumberland to Piedmont—Main Line
Eckhart and Hoffman Branches ....
Other Branch Lines .....
All other tracks operated .....

Total .....

Principal Structures—

Bridges, steel and concrete—number..
Tunnels (1,458 feet)—number .....
Station Buildings—number .....
Shops and Enginehouse Buildings—n
All other buildings—number .....

Equipment—

Locomotives, Freight .....
Gasoline-Electric Locomotive, passeng
Freight Equipment .....
Passenger Equipment .....
Work Equipment .....

Total units .....
Employes—number .....

Coal Transported	1845	.....
"	" 1906	.....
"	" 1920	.....
"	" 1930	.....
"	" 1936	.....

The Cumberland and Pennsylvani
owns the three Main Line tracks over
and Ohio Railroad Company operate
trackage agreement between Viadu
Street), Cumberland and Mount Sava
rigansville, Md. The distance betwe
miles; the total of all tracks leased b

Construction Periods of the M
Cumberland and Pennsyl

Name of Company	Name of
Md. & N. Y. Iron & Coal Co.	Main Lin
The Maryland Mining Co.	Eckhart
The Maryland Mining Co.	Potomac
Mount Savage Iron Co.	Potomac
Mount Savage Iron Co.	Mt. Savag
Georges Creek Coal & Iron Co.	Main Line
Cumb. & Penna. R. R. Co.	Main Line Barden
Cumb. Coal & Iron Co.	Hoffman
Midlothian Coal Co.	Midlothia
Cumb. & Penna. R. R. Co.	Main Lin Cumber
The Consolidation Coal Co.	State Lin
Cumb. & Penna. R. R. Co.	Carlos Br
Cumb. & Penna. R. R. Co.	Main Line
Cumb. & Penna. R. R. Co.	Union No

Commercial Coal
Cumberland and Per

Name of Seam	Th
Big Vein or Pittsburgh	
Tyson	
Bakerstown	
Waynesburg	
Upper Freeport (Masandier)	
Brookville or Bluebaugh	
Brush Creek	
Upper Kittanning	
Parker	
Clarion	
Little Pittsburgh	
Piedmont (Six Foot)	
Lower Freeport	
Total	

Figure 191 – Patrick H. Stakem (left) and Deane Mellander in front of C&P Office Building, Mount Savage, photo by Patrick E. Stakem

Patrick H. Stakem is a native of Cumberland, Maryland, currently residing in Laurel. His maternal grandfather, Claude L. Ward served on the C&P's Eckhart Branch as an Engineer. Mr. Stakem is a member of the Western Maryland Chapter of the National Railway Historical Society, The Locomotive & Railway Historical Society, The Western Maryland Railway Historical Society, The Chesapeake & Ohio Canal Historical Society, the Council of the Alleghenies, and the Preservation Society of Allegany County. He is a co-author of two previous railroad books, relating to the diesels of the Western Maryland Railway, and CSX Corporation, and of numerous articles on railroad related topics.